



Protein

AA

PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	Books
Search		Protein	for			Go	Clear	
Limits		Preview/Index		History		Clipboard		Details
Display	default	Save	Text	Add to Clipboard				

1: XP\_058989[gi:17482814]

LOCUS XP\_058989 233 aa linear PRI 10-DEC-2001  
 DEFINITION similar to NAG14 protein (H. sapiens) [Homo sapiens].  
 ACCESSION XP\_058989  
 VERSION XP\_058989.1 GI:17482814  
 DBSOURCE REFSEQ: accession XM\_058989.1  
 KEYWORDS  
 SOURCE human.  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1 (residues 1 to 233)  
 AUTHORS NCBI Annotation Project.  
 TITLE Direct Submission  
 JOURNAL Submitted (05-DEC-2001) National Center for Biotechnology  
 Information, NIH, Bethesda, MD 20894, USA  
 COMMENT GENOME ANNOTATION REFSEQ: This model reference sequence was  
 predicted from NCBI contig NT\_011190 by automated computational  
 analysis using gene prediction method: BLAST, supported by EST  
 evidence.  
 Also see:

Documentation of NCBI's Annotation Process

COMPLETENESS: incomplete on the carboxy end.

FEATURES Location/Qualifiers  
 source 1..233  
 /organism="Homo sapiens"  
 /db\_xref="taxon:9606"  
 /chromosome="19"  
Protein 1..233  
Region 59..92  
 /region\_name="Leucine rich repeat N-terminal domain"  
 /note="LRRNT"  
 /db\_xref="CDD: smart00013"  
CDS 1..233  
 /gene="LOC126117"  
 /coded\_by="XM\_058989.1:6..>704"  
 /note="Located on Accession NT\_011190"  
 /db\_xref="InterimID: 126117"

#### ORIGIN

```

1 mrmrarargsp cpplppgrms wphgallflw lfspplgagg ggvavtsaag ggsppatscp
61 vacscsnqas rvictrrdla evpasipvnt rylnlqengi qvirtdtfkh lrhleilqls
121 knlvrvkievg afnglpslnt lelfdnrltt vptqafeyls klrelwlrrn piesipsyaf
181 nrtpsllrld lgelkrleyi seaafeglvr lrylnlgmcn lkdpnlral vrl

```

//

Revised: October 24, 2001.



PubMed Nucleotide Protein Genome Structure PopSet Taxonomy OMIM Book

Search Protein for 17482814 Go Clear

Limits Preview/Index History Clipboard Details

Display Summary Save Text Clip Add

Entrez Protein

1: XP\_058989

ref[XP\_058989.1][17482814]

This record was removed at the submitters request.

Related resources

Revised: October 24, 2001.

[Disclaimer](#) | [Write to the Help Desk](#)  
[NCBI](#) | [NLM](#) | [NIH](#)



(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
18 October 2001 (18.10.2001)

PCT

(10) International Publication Number  
**WO 01/77291 A2**

- (51) International Patent Classification<sup>7</sup>: **C12N**
- (21) International Application Number: PCT/US01/10485
- (22) International Filing Date: 29 March 2001 (29.03.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/195,604 6 April 2000 (06.04.2000) US

(71) Applicant: **GENETICS INSTITUTE, INC.** [US/US]; 87  
CambridgePark Drive, Cambridge, MA 02140 (US).

(72) Inventors: **WONG, Gordon, G.**; 239 Clark Road, Brook-  
line, MA 02146 (US). **CLARK, Hilary, F.**; 495 Harkness  
Avenue, San Francisco, CA 94134 (US). **FECHTEL,**  
Kim; 46 Marion Road, Arlington, MA 02174 (US).  
**AGOSTINO, Michael, J.**; 26 Walcott Avenue, Andover,  
MA 01810 (US). **HOWES, Steven, H.**; 37 Yerxa Road #2,  
No. 2, Cambridge, MA 02140 (US). **RESNICK, Richard,**  
J.; 36 Burnside Avenue, Somerville, MA 02144 (US).  
**GULUKOTA, Kamalakur;** 3 Stout Court, Lawrenceville,  
NJ 08648 (US). **GRAHAM, James, R.**; 40 Peirce Street,  
Arlington, MA 02476 (US).

(74) Agents: **MANDRAGOURAS, Amy, E. et al.**; Lahive &  
Cockfield, LLP, 28 State Street, Boston, MA 02109 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,  
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,  
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,  
MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,  
TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian  
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European  
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,  
IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF,  
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished  
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: **POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS**

(57) Abstract: Isolated polynucleotides which have been derived from a variety of human tissue sources, and which encode novel secreted proteins, are provided. Also provided are methods for producing proteins using these polynucleotides, and the proteins so produced.



WO 01/77291 A2

## POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS

RELATED APPLICATIONS

This application claims the benefit of prior-filed provisional patent application U.S. Serial No. 60/195,604 entitled "Polynucleotides Encoding Novel Secreted Proteins", filed April 6, 2000. The content of the above-referenced application is incorporated in its entirety.

FIELD OF THE INVENTION

The present invention provides novel polynucleotides and proteins encoded by such polynucleotides, along with therapeutic, diagnostic and research utilities for these polynucleotides and proteins.

BACKGROUND OF THE INVENTION

Gargantuan efforts have been employed by various investigational projects to randomly sequence portions of naturally-occurring cDNAs. The rationale behind this approach to identification and sequencing genes is founded in two basic principles: (1) that transcribed cDNAs represent the product of the most important genes, namely those that are actually expressed *in vivo*, and (2) that efforts to sequence genes and other portions of the genome of target organisms which are not actually expressed wastes substantial effort on areas not likely to yield genetic information of therapeutic importance. Thus, the high-throughput sequencing efforts focus on only those portions of the genome which are expressed. The randomly produced cDNA sequences represent "expressed sequence tags" or "ESTs", which identify and can be used as probes for the longer, full-length cDNA or genomic sequence from which they were transcribed.

Although this "shortcut" approach to genomic sequencing presents savings of effort compared to sequencing of the complete genome, it still produced a vast array of ESTs which may not be directly useful as protein therapeutics. To date, the majority of protein-related drug discovery has focused on the use of secreted proteins to produce a desired therapeutic effect. Since the EST approach theoretically identifies all expressed proteins, it produces an EST library which contains a mixture of secreted proteins (such as hormones, cytokines and receptors) and non-secreted proteins (such as, for example, metabolic enzymes and cellular structural proteins), without identifying which ESTs correspond to proteins falling into either category. As a result, these methods are not optimally tailored to the needs of investigators searching for secreted proteins because

they must separate the secreted "wheat" from the non-secreted "chaff", wasting effort and resources in the process.

Technology aimed at the discovery of protein factors (including e.g., cytokines, such as lymphokines, interferons, CSFs and interleukins) has matured rapidly over the past decade. The now routine hybridization cloning and expression cloning techniques clone novel polynucleotides "directly" in the sense that they rely on information directly related to the discovered protein (i.e., partial DNA/amino acid sequence of the protein in the case of hybridization cloning; activity of the protein in the case of expression cloning).

More recent "indirect" cloning techniques such as signal sequence cloning, which isolates DNA sequences based on the presence of a now well-recognized secretory leader sequence motif, as well as various PCR-based or low stringency hybridization cloning techniques, have advanced the state of the art by making available large numbers of DNA/amino acid sequences for proteins that are known to have biological activity by virtue of their secreted nature in the case of leader sequence cloning, or by virtue of the cell or tissue source in the case of PCR-based techniques. Co-assigned U.S. Patent No. 5,536,637, which is incorporated herein by reference, provides methods for focusing genomic sequencing efforts on sequences encoding the secreted proteins which are of most interest for identification of protein therapeutics. The '637 patent discloses a "signal sequence trap" which selectively identifies partial sequences encoding secreted proteins, namely "secreted expressed sequence tags" or "sESTs". The sequences of these sESTs can be used to design probes to isolate the full-length cDNA clones that encode secreted proteins.

It is to these secreted proteins and the full-length polynucleotides encoding them that the present invention is directed.

#### SUMMARY OF THE INVENTION

The present invention provides for full-length cDNAs isolated from a variety of human RNA/cDNA sources which encode novel secreted proteins.

In preferred embodiments, the present invention provides an isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID

NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208,

SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ ID NO:307, SEQ ID NO:308, SEQ ID NO:309, SEQ ID NO:310, SEQ ID NO:311, SEQ ID NO:312, SEQ ID NO:313, SEQ ID NO:314, SEQ ID NO:315, SEQ ID NO:316, SEQ ID NO:317, SEQ ID NO:318, SEQ ID NO:319, SEQ ID NO:320, SEQ ID NO:321, SEQ ID NO:322, SEQ ID NO:323, SEQ ID NO:324, SEQ ID NO:325, SEQ ID NO:326, SEQ ID NO:327, SEQ ID NO:328, SEQ ID NO:329, SEQ ID NO:330, SEQ ID NO:331, SEQ ID NO:332, SEQ ID NO:333, SEQ ID NO:334, SEQ ID NO:335, SEQ ID NO:336, SEQ ID NO:337, SEQ ID NO:338, SEQ ID NO:339, SEQ ID NO:340, SEQ ID NO:341, SEQ ID NO:342, SEQ ID NO:343, SEQ ID NO:344, SEQ ID NO:345, SEQ ID NO:346, SEQ ID NO:347, SEQ ID NO:348, SEQ ID NO:349, SEQ ID NO:350, SEQ ID NO:351, SEQ ID NO:352, SEQ ID NO:353, SEQ ID NO:354, SEQ ID NO:355, SEQ ID NO:356, SEQ ID NO:357, SEQ ID NO:358, SEQ ID NO:359, SEQ ID NO:360, SEQ ID NO:361, SEQ ID NO:362, SEQ ID NO:363, SEQ ID NO:364, SEQ ID NO:365, SEQ ID NO:366, SEQ ID NO:367, SEQ ID NO:368, SEQ ID NO:369, SEQ ID NO:370, SEQ ID NO:371, SEQ ID NO:372, SEQ ID NO:373, SEQ ID NO:374, SEQ ID NO:375, SEQ ID NO:376, SEQ ID NO:377, SEQ ID NO:378, SEQ ID NO:379, SEQ ID NO:380, SEQ ID

NO:381, SEQ ID NO:382, SEQ ID NO:383, SEQ ID NO:384, SEQ ID NO:385, SEQ ID NO:386, SEQ ID NO:387, SEQ ID NO:388, SEQ ID NO:389, SEQ ID NO:390, SEQ ID NO:391, SEQ ID NO:392, SEQ ID NO:393, SEQ ID NO:394, SEQ ID NO:395, SEQ ID NO:396, SEQ ID NO:397, SEQ ID NO:398, SEQ ID NO:399, SEQ ID NO:400, SEQ ID NO:401, SEQ ID NO:402, SEQ ID NO:403, SEQ ID NO:404, SEQ ID NO:405, SEQ ID NO:406, SEQ ID NO:407, SEQ ID NO:408, SEQ ID NO:409, SEQ ID NO:410, SEQ ID NO:411, SEQ ID NO:412, SEQ ID NO:413, SEQ ID NO:414, SEQ ID NO:415, SEQ ID NO:416, SEQ ID NO:417, SEQ ID NO:418, SEQ ID NO:419, SEQ ID NO:420, SEQ ID NO:421, SEQ ID NO:422, SEQ ID NO:423, SEQ ID NO:424, SEQ ID NO:425, SEQ ID NO:426, SEQ ID NO:427, SEQ ID NO:428, SEQ ID NO:429, SEQ ID NO:430, SEQ ID NO:431, SEQ ID NO:432, SEQ ID NO:433, SEQ ID NO:434, SEQ ID NO:435, SEQ ID NO:436, SEQ ID NO:437, SEQ ID NO:438, SEQ ID NO:439, SEQ ID NO:440, SEQ ID NO:441, SEQ ID NO:442, SEQ ID NO:443, SEQ ID NO:444, SEQ ID NO:445, SEQ ID NO:446, SEQ ID NO:447, SEQ ID NO:448, SEQ ID NO:449, SEQ ID NO:450, SEQ ID NO:451, SEQ ID NO:452, SEQ ID NO:453, SEQ ID NO:454, SEQ ID NO:455, SEQ ID NO:456, SEQ ID NO:457, SEQ ID NO:458, SEQ ID NO:459, SEQ ID NO:460, SEQ ID NO:461, SEQ ID NO:462, SEQ ID NO:463, SEQ ID NO:464, SEQ ID NO:465, SEQ ID NO:466, SEQ ID NO:467, SEQ ID NO:468, SEQ ID NO:469, SEQ ID NO:470, SEQ ID NO:471, SEQ ID NO:472, SEQ ID NO:473, SEQ ID NO:474, SEQ ID NO:475, SEQ ID NO:476, SEQ ID NO:477, SEQ ID NO:478, SEQ ID NO:479, SEQ ID NO:480, SEQ ID NO:481, SEQ ID NO:482, SEQ ID NO:483, SEQ ID NO:484, SEQ ID NO:485, SEQ ID NO:486, SEQ ID NO:487, SEQ ID NO:488, SEQ ID NO:489, SEQ ID NO:490, SEQ ID NO:491, SEQ ID NO:492, SEQ ID NO:493, SEQ ID NO:494, SEQ ID NO:495, SEQ ID NO:496, SEQ ID NO:497, SEQ ID NO:498, SEQ ID NO:499, SEQ ID NO:500, SEQ ID NO:501, SEQ ID NO:502, SEQ ID NO:503, SEQ ID NO:504, SEQ ID NO:505, SEQ ID NO:506, SEQ ID NO:507, SEQ ID NO:508, SEQ ID NO:509, SEQ ID NO:510, SEQ ID NO:511, SEQ ID NO:512, SEQ ID NO:513, SEQ ID NO:514, SEQ ID NO:515, SEQ ID NO:516, SEQ ID NO:517, SEQ ID NO:518, SEQ ID NO:519, SEQ ID NO:520, SEQ ID NO:521, SEQ ID NO:522, SEQ ID NO:523, SEQ ID NO:524, SEQ ID NO:525, SEQ ID NO:526, SEQ ID NO:527, SEQ ID NO:528, SEQ ID NO:529, SEQ ID NO:530, SEQ ID NO:531, SEQ ID NO:532, SEQ ID NO:533, SEQ ID NO:534, SEQ ID NO:535, SEQ ID NO:536, SEQ ID NO:537, SEQ ID NO:538, SEQ ID NO:539, SEQ ID NO:540, SEQ ID NO:541, SEQ ID NO:542, SEQ ID NO:543, SEQ ID NO:544, SEQ ID NO:545, SEQ ID NO:546, SEQ ID NO:547, SEQ ID NO:548, SEQ ID NO:549, SEQ ID NO:550, SEQ ID NO:551, SEQ ID NO:552, SEQ ID NO:553, SEQ

ID NO:554, SEQ ID NO:555, SEQ ID NO:556, SEQ ID NO:557, SEQ ID NO:558, SEQ ID NO:559, SEQ ID NO:560, SEQ ID NO:561, SEQ ID NO:562, SEQ ID NO:563, SEQ ID NO:564, SEQ ID NO:565, SEQ ID NO:566, SEQ ID NO:567, SEQ ID NO:568, SEQ ID NO:569, SEQ ID NO:570, SEQ ID NO:571, SEQ ID NO:572, SEQ ID NO:573, SEQ ID NO:574, SEQ ID NO:575, SEQ ID NO:576, SEQ ID NO:577, SEQ ID NO:578, SEQ ID NO:579, SEQ ID NO:580, SEQ ID NO:581, SEQ ID NO:582, SEQ ID NO:583, SEQ ID NO:584, SEQ ID NO:585, SEQ ID NO:586, SEQ ID NO:587, SEQ ID NO:588, SEQ ID NO:589, SEQ ID NO:590, SEQ ID NO:591, SEQ ID NO:592, SEQ ID NO:593, SEQ ID NO:594, SEQ ID NO:595, SEQ ID NO:596, SEQ ID NO:597, SEQ ID NO:598, SEQ ID NO:599, SEQ ID NO:600, SEQ ID NO:601, SEQ ID NO:602, SEQ ID NO:603, SEQ ID NO:604, SEQ ID NO:605, SEQ ID NO:606, SEQ ID NO:607, SEQ ID NO:608, SEQ ID NO:609, SEQ ID NO:610, SEQ ID NO:611, SEQ ID NO:612, SEQ ID NO:613, SEQ ID NO:614, SEQ ID NO:615, SEQ ID NO:616, SEQ ID NO:617, SEQ ID NO:618, SEQ ID NO:619, SEQ ID NO:620, SEQ ID NO:621, SEQ ID NO:622, SEQ ID NO:623, SEQ ID NO:624, SEQ ID NO:625;

or a complement of said sequence.

In other embodiments, the present invention provides an isolated polynucleotide consisting of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID

NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ



ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ ID NO:307, SEQ ID NO:308, SEQ ID NO:309, SEQ ID NO:310, SEQ ID NO:311, SEQ ID NO:312, SEQ ID NO:313, SEQ ID NO:314, SEQ ID NO:315, SEQ ID NO:316, SEQ ID NO:317, SEQ ID NO:318, SEQ ID NO:319, SEQ ID NO:320, SEQ ID NO:321, SEQ ID NO:322, SEQ ID NO:323, SEQ ID NO:324, SEQ ID NO:325, SEQ ID NO:326, SEQ ID NO:327, SEQ ID NO:328, SEQ ID NO:329, SEQ ID NO:330, SEQ ID NO:331, SEQ ID NO:332, SEQ ID NO:333, SEQ ID NO:334, SEQ ID NO:335, SEQ ID NO:336, SEQ ID NO:337, SEQ ID NO:338, SEQ ID NO:339, SEQ ID NO:340, SEQ ID NO:341, SEQ ID NO:342, SEQ ID NO:343, SEQ ID NO:344, SEQ ID NO:345, SEQ ID NO:346, SEQ ID NO:347, SEQ ID NO:348, SEQ ID NO:349, SEQ ID NO:350, SEQ ID NO:351, SEQ ID NO:352, SEQ ID NO:353, SEQ ID NO:354, SEQ ID NO:355, SEQ ID NO:356, SEQ ID NO:357, SEQ ID NO:358, SEQ ID NO:359, SEQ ID NO:360, SEQ ID NO:361, SEQ ID NO:362, SEQ ID NO:363, SEQ ID NO:364, SEQ ID NO:365, SEQ ID NO:366, SEQ ID NO:367, SEQ ID NO:368, SEQ ID NO:369, SEQ ID NO:370, SEQ ID NO:371, SEQ ID NO:372, SEQ ID NO:373, SEQ ID NO:374, SEQ ID NO:375, SEQ ID NO:376, SEQ ID NO:377, SEQ ID NO:378, SEQ ID NO:379, SEQ ID NO:380, SEQ ID NO:381, SEQ ID NO:382, SEQ ID NO:383, SEQ ID NO:384, SEQ ID NO:385, SEQ ID NO:386, SEQ ID NO:387, SEQ ID NO:388, SEQ ID NO:389, SEQ ID NO:390, SEQ ID NO:391, SEQ ID NO:392, SEQ ID NO:393, SEQ ID NO:394, SEQ ID NO:395, SEQ ID NO:396, SEQ ID NO:397, SEQ ID NO:398, SEQ ID NO:399, SEQ ID NO:400, SEQ ID NO:401, SEQ ID NO:402, SEQ ID NO:403, SEQ ID NO:404, SEQ ID NO:405, SEQ ID NO:406, SEQ ID NO:407, SEQ ID NO:408, SEQ ID NO:409, SEQ ID NO:410, SEQ ID NO:411, SEQ ID NO:412, SEQ ID NO:413, SEQ ID NO:414, SEQ ID NO:415, SEQ ID NO:416, SEQ ID NO:417, SEQ ID NO:418, SEQ ID NO:419, SEQ ID NO:420, SEQ ID NO:421, SEQ ID NO:422, SEQ ID NO:423, SEQ ID NO:424, SEQ ID NO:425, SEQ ID NO:426, SEQ ID NO:427, SEQ ID NO:428, SEQ ID NO:429, SEQ ID NO:430, SEQ ID NO:431, SEQ ID NO:432,

SEQ ID NO:433, SEQ ID NO:434, SEQ ID NO:435, SEQ ID NO:436, SEQ ID NO:437, SEQ ID NO:438, SEQ ID NO:439, SEQ ID NO:440, SEQ ID NO:441, SEQ ID NO:442, SEQ ID NO:443, SEQ ID NO:444, SEQ ID NO:445, SEQ ID NO:446, SEQ ID NO:447, SEQ ID NO:448, SEQ ID NO:449, SEQ ID NO:450, SEQ ID NO:451, SEQ ID NO:452, SEQ ID NO:453, SEQ ID NO:454, SEQ ID NO:455, SEQ ID NO:456, SEQ ID NO:457, SEQ ID NO:458, SEQ ID NO:459, SEQ ID NO:460, SEQ ID NO:461, SEQ ID NO:462, SEQ ID NO:463, SEQ ID NO:464, SEQ ID NO:465, SEQ ID NO:466, SEQ ID NO:467, SEQ ID NO:468, SEQ ID NO:469, SEQ ID NO:470, SEQ ID NO:471, SEQ ID NO:472, SEQ ID NO:473, SEQ ID NO:474, SEQ ID NO:475, SEQ ID NO:476, SEQ ID NO:477, SEQ ID NO:478, SEQ ID NO:479, SEQ ID NO:480, SEQ ID NO:481, SEQ ID NO:482, SEQ ID NO:483, SEQ ID NO:484, SEQ ID NO:485, SEQ ID NO:486, SEQ ID NO:487, SEQ ID NO:488, SEQ ID NO:489, SEQ ID NO:490, SEQ ID NO:491, SEQ ID NO:492, SEQ ID NO:493, SEQ ID NO:494, SEQ ID NO:495, SEQ ID NO:496, SEQ ID NO:497, SEQ ID NO:498, SEQ ID NO:499, SEQ ID NO:500, SEQ ID NO:501, SEQ ID NO:502, SEQ ID NO:503, SEQ ID NO:504, SEQ ID NO:505, SEQ ID NO:506, SEQ ID NO:507, SEQ ID NO:508, SEQ ID NO:509, SEQ ID NO:510, SEQ ID NO:511, SEQ ID NO:512, SEQ ID NO:513, SEQ ID NO:514, SEQ ID NO:515, SEQ ID NO:516, SEQ ID NO:517, SEQ ID NO:518, SEQ ID NO:519, SEQ ID NO:520, SEQ ID NO:521, SEQ ID NO:522, SEQ ID NO:523, SEQ ID NO:524, SEQ ID NO:525, SEQ ID NO:526, SEQ ID NO:527, SEQ ID NO:528, SEQ ID NO:529, SEQ ID NO:530, SEQ ID NO:531, SEQ ID NO:532, SEQ ID NO:533, SEQ ID NO:534, SEQ ID NO:535, SEQ ID NO:536, SEQ ID NO:537, SEQ ID NO:538, SEQ ID NO:539, SEQ ID NO:540, SEQ ID NO:541, SEQ ID NO:542, SEQ ID NO:543, SEQ ID NO:544, SEQ ID NO:545, SEQ ID NO:546, SEQ ID NO:547, SEQ ID NO:548, SEQ ID NO:549, SEQ ID NO:550, SEQ ID NO:551, SEQ ID NO:552, SEQ ID NO:553, SEQ ID NO:554, SEQ ID NO:555, SEQ ID NO:556, SEQ ID NO:557, SEQ ID NO:558, SEQ ID NO:559, SEQ ID NO:560, SEQ ID NO:561, SEQ ID NO:562, SEQ ID NO:563, SEQ ID NO:564, SEQ ID NO:565, SEQ ID NO:566, SEQ ID NO:567, SEQ ID NO:568, SEQ ID NO:569, SEQ ID NO:570, SEQ ID NO:571, SEQ ID NO:572, SEQ ID NO:573, SEQ ID NO:574, SEQ ID NO:575, SEQ ID NO:576, SEQ ID NO:577, SEQ ID NO:578, SEQ ID NO:579, SEQ ID NO:580, SEQ ID NO:581, SEQ ID NO:582, SEQ ID NO:583, SEQ ID NO:584, SEQ ID NO:585, SEQ ID NO:586, SEQ ID NO:587, SEQ ID NO:588, SEQ ID NO:589, SEQ ID NO:590, SEQ ID NO:591, SEQ ID NO:592, SEQ ID NO:593, SEQ ID NO:594, SEQ ID NO:595, SEQ ID NO:596, SEQ ID NO:597, SEQ ID NO:598, SEQ ID NO:599, SEQ ID NO:600, SEQ ID NO:601, SEQ ID NO:602, SEQ ID NO:603, SEQ ID NO:604, SEQ ID

NO:605, SEQ ID NO:606, SEQ ID NO:607, SEQ ID NO:608, SEQ ID NO:609, SEQ ID NO:610, SEQ ID NO:611, SEQ ID NO:612, SEQ ID NO:613, SEQ ID NO:614, SEQ ID NO:615, SEQ ID NO:616, SEQ ID NO:617, SEQ ID NO:618, SEQ ID NO:619, SEQ ID NO:620, SEQ ID NO:621, SEQ ID NO:622, SEQ ID NO:623, SEQ ID NO:624, SEQ ID NO:625;

or a complement of said sequence.

In further embodiments, the present invention provides an isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138,

SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ ID NO:307, SEQ ID NO:308, SEQ ID NO:309, SEQ ID NO:310, SEQ ID

NO:311, SEQ ID NO:312, SEQ ID NO:313, SEQ ID NO:314, SEQ ID NO:315, SEQ ID NO:316, SEQ ID NO:317, SEQ ID NO:318, SEQ ID NO:319, SEQ ID NO:320, SEQ ID NO:321, SEQ ID NO:322, SEQ ID NO:323, SEQ ID NO:324, SEQ ID NO:325, SEQ ID NO:326, SEQ ID NO:327, SEQ ID NO:328, SEQ ID NO:329, SEQ ID NO:330, SEQ ID NO:331, SEQ ID NO:332, SEQ ID NO:333, SEQ ID NO:334, SEQ ID NO:335, SEQ ID NO:336, SEQ ID NO:337, SEQ ID NO:338, SEQ ID NO:339, SEQ ID NO:340, SEQ ID NO:341, SEQ ID NO:342, SEQ ID NO:343, SEQ ID NO:344, SEQ ID NO:345, SEQ ID NO:346, SEQ ID NO:347, SEQ ID NO:348, SEQ ID NO:349, SEQ ID NO:350, SEQ ID NO:351, SEQ ID NO:352, SEQ ID NO:353, SEQ ID NO:354, SEQ ID NO:355, SEQ ID NO:356, SEQ ID NO:357, SEQ ID NO:358, SEQ ID NO:359, SEQ ID NO:360, SEQ ID NO:361, SEQ ID NO:362, SEQ ID NO:363, SEQ ID NO:364, SEQ ID NO:365, SEQ ID NO:366, SEQ ID NO:367, SEQ ID NO:368, SEQ ID NO:369, SEQ ID NO:370, SEQ ID NO:371, SEQ ID NO:372, SEQ ID NO:373, SEQ ID NO:374, SEQ ID NO:375, SEQ ID NO:376, SEQ ID NO:377, SEQ ID NO:378, SEQ ID NO:379, SEQ ID NO:380, SEQ ID NO:381, SEQ ID NO:382, SEQ ID NO:383, SEQ ID NO:384, SEQ ID NO:385, SEQ ID NO:386, SEQ ID NO:387, SEQ ID NO:388, SEQ ID NO:389, SEQ ID NO:390, SEQ ID NO:391, SEQ ID NO:392, SEQ ID NO:393, SEQ ID NO:394, SEQ ID NO:395, SEQ ID NO:396, SEQ ID NO:397, SEQ ID NO:398, SEQ ID NO:399, SEQ ID NO:400, SEQ ID NO:401, SEQ ID NO:402, SEQ ID NO:403, SEQ ID NO:404, SEQ ID NO:405, SEQ ID NO:406, SEQ ID NO:407, SEQ ID NO:408, SEQ ID NO:409, SEQ ID NO:410, SEQ ID NO:411, SEQ ID NO:412, SEQ ID NO:413, SEQ ID NO:414, SEQ ID NO:415, SEQ ID NO:416, SEQ ID NO:417, SEQ ID NO:418, SEQ ID NO:419, SEQ ID NO:420, SEQ ID NO:421, SEQ ID NO:422, SEQ ID NO:423, SEQ ID NO:424, SEQ ID NO:425, SEQ ID NO:426, SEQ ID NO:427, SEQ ID NO:428, SEQ ID NO:429, SEQ ID NO:430, SEQ ID NO:431, SEQ ID NO:432, SEQ ID NO:433, SEQ ID NO:434, SEQ ID NO:435, SEQ ID NO:436, SEQ ID NO:437, SEQ ID NO:438, SEQ ID NO:439, SEQ ID NO:440, SEQ ID NO:441, SEQ ID NO:442, SEQ ID NO:443, SEQ ID NO:444, SEQ ID NO:445, SEQ ID NO:446, SEQ ID NO:447, SEQ ID NO:448, SEQ ID NO:449, SEQ ID NO:450, SEQ ID NO:451, SEQ ID NO:452, SEQ ID NO:453, SEQ ID NO:454, SEQ ID NO:455, SEQ ID NO:456, SEQ ID NO:457, SEQ ID NO:458, SEQ ID NO:459, SEQ ID NO:460, SEQ ID NO:461, SEQ ID NO:462, SEQ ID NO:463, SEQ ID NO:464, SEQ ID NO:465, SEQ ID NO:466, SEQ ID NO:467, SEQ ID NO:468, SEQ ID NO:469, SEQ ID NO:470, SEQ ID NO:471, SEQ ID NO:472, SEQ ID NO:473, SEQ ID NO:474, SEQ ID NO:475, SEQ ID NO:476, SEQ ID NO:477, SEQ ID NO:478, SEQ ID NO:479, SEQ ID NO:480, SEQ ID NO:481, SEQ ID NO:482, SEQ ID NO:483, SEQ

ID NO:484, SEQ ID NO:485, SEQ ID NO:486, SEQ ID NO:487, SEQ ID NO:488, SEQ ID NO:489, SEQ ID NO:490, SEQ ID NO:491, SEQ ID NO:492, SEQ ID NO:493, SEQ ID NO:494, SEQ ID NO:495, SEQ ID NO:496, SEQ ID NO:497, SEQ ID NO:498, SEQ ID NO:499, SEQ ID NO:500, SEQ ID NO:501, SEQ ID NO:502, SEQ ID NO:503, SEQ ID NO:504, SEQ ID NO:505, SEQ ID NO:506, SEQ ID NO:507, SEQ ID NO:508, SEQ ID NO:509, SEQ ID NO:510, SEQ ID NO:511, SEQ ID NO:512, SEQ ID NO:513, SEQ ID NO:514, SEQ ID NO:515, SEQ ID NO:516, SEQ ID NO:517, SEQ ID NO:518, SEQ ID NO:519, SEQ ID NO:520, SEQ ID NO:521, SEQ ID NO:522, SEQ ID NO:523, SEQ ID NO:524, SEQ ID NO:525, SEQ ID NO:526, SEQ ID NO:527, SEQ ID NO:528, SEQ ID NO:529, SEQ ID NO:530, SEQ ID NO:531, SEQ ID NO:532, SEQ ID NO:533, SEQ ID NO:534, SEQ ID NO:535, SEQ ID NO:536, SEQ ID NO:537, SEQ ID NO:538, SEQ ID NO:539, SEQ ID NO:540, SEQ ID NO:541, SEQ ID NO:542, SEQ ID NO:543, SEQ ID NO:544, SEQ ID NO:545, SEQ ID NO:546, SEQ ID NO:547, SEQ ID NO:548, SEQ ID NO:549, SEQ ID NO:550, SEQ ID NO:551, SEQ ID NO:552, SEQ ID NO:553, SEQ ID NO:554, SEQ ID NO:555, SEQ ID NO:556, SEQ ID NO:557, SEQ ID NO:558, SEQ ID NO:559, SEQ ID NO:560, SEQ ID NO:561, SEQ ID NO:562, SEQ ID NO:563, SEQ ID NO:564, SEQ ID NO:565, SEQ ID NO:566, SEQ ID NO:567, SEQ ID NO:568, SEQ ID NO:569, SEQ ID NO:570, SEQ ID NO:571, SEQ ID NO:572, SEQ ID NO:573, SEQ ID NO:574, SEQ ID NO:575, SEQ ID NO:576, SEQ ID NO:577, SEQ ID NO:578, SEQ ID NO:579, SEQ ID NO:580, SEQ ID NO:581, SEQ ID NO:582, SEQ ID NO:583, SEQ ID NO:584, SEQ ID NO:585, SEQ ID NO:586, SEQ ID NO:587, SEQ ID NO:588, SEQ ID NO:589, SEQ ID NO:590, SEQ ID NO:591, SEQ ID NO:592, SEQ ID NO:593, SEQ ID NO:594, SEQ ID NO:595, SEQ ID NO:596, SEQ ID NO:597, SEQ ID NO:598, SEQ ID NO:599, SEQ ID NO:600, SEQ ID NO:601, SEQ ID NO:602, SEQ ID NO:603, SEQ ID NO:604, SEQ ID NO:605, SEQ ID NO:606, SEQ ID NO:607, SEQ ID NO:608, SEQ ID NO:609, SEQ ID NO:610, SEQ ID NO:611, SEQ ID NO:612, SEQ ID NO:613, SEQ ID NO:614, SEQ ID NO:615, SEQ ID NO:616, SEQ ID NO:617, SEQ ID NO:618, SEQ ID NO:619, SEQ ID NO:620, SEQ ID NO:621, SEQ ID NO:622, SEQ ID NO:623, SEQ ID NO:624, SEQ ID NO:625;

or a complement of said sequence.

In yet other embodiments, the present invention provides an isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID

NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ

ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ ID NO:307, SEQ ID NO:308, SEQ ID NO:309, SEQ ID NO:310, SEQ ID NO:311, SEQ ID NO:312, SEQ ID NO:313, SEQ ID NO:314, SEQ ID NO:315, SEQ ID NO:316, SEQ ID NO:317, SEQ ID NO:318, SEQ ID NO:319, SEQ ID NO:320, SEQ ID NO:321, SEQ ID NO:322, SEQ ID NO:323, SEQ ID NO:324, SEQ ID NO:325, SEQ ID NO:326, SEQ ID NO:327, SEQ ID NO:328, SEQ ID NO:329, SEQ ID NO:330, SEQ ID NO:331, SEQ ID NO:332, SEQ ID NO:333, SEQ ID NO:334, SEQ ID NO:335, SEQ ID NO:336, SEQ ID NO:337, SEQ ID NO:338, SEQ ID NO:339, SEQ ID NO:340, SEQ ID NO:341, SEQ ID NO:342, SEQ ID NO:343, SEQ ID NO:344, SEQ ID NO:345, SEQ ID NO:346, SEQ ID NO:347, SEQ ID NO:348, SEQ ID NO:349, SEQ ID NO:350, SEQ ID NO:351, SEQ ID NO:352, SEQ ID NO:353, SEQ ID NO:354, SEQ ID NO:355, SEQ ID NO:356, SEQ ID NO:357, SEQ ID NO:358, SEQ ID NO:359, SEQ ID NO:360, SEQ ID NO:361, SEQ ID NO:362,



SEQ ID NO:363, SEQ ID NO:364, SEQ ID NO:365, SEQ ID NO:366, SEQ ID NO:367, SEQ ID NO:368, SEQ ID NO:369, SEQ ID NO:370, SEQ ID NO:371, SEQ ID NO:372, SEQ ID NO:373, SEQ ID NO:374, SEQ ID NO:375, SEQ ID NO:376, SEQ ID NO:377, SEQ ID NO:378, SEQ ID NO:379, SEQ ID NO:380, SEQ ID NO:381, SEQ ID NO:382, SEQ ID NO:383, SEQ ID NO:384, SEQ ID NO:385, SEQ ID NO:386, SEQ ID NO:387, SEQ ID NO:388, SEQ ID NO:389, SEQ ID NO:390, SEQ ID NO:391, SEQ ID NO:392, SEQ ID NO:393, SEQ ID NO:394, SEQ ID NO:395, SEQ ID NO:396, SEQ ID NO:397, SEQ ID NO:398, SEQ ID NO:399, SEQ ID NO:400, SEQ ID NO:401, SEQ ID NO:402, SEQ ID NO:403, SEQ ID NO:404, SEQ ID NO:405, SEQ ID NO:406, SEQ ID NO:407, SEQ ID NO:408, SEQ ID NO:409, SEQ ID NO:410, SEQ ID NO:411, SEQ ID NO:412, SEQ ID NO:413, SEQ ID NO:414, SEQ ID NO:415, SEQ ID NO:416, SEQ ID NO:417, SEQ ID NO:418, SEQ ID NO:419, SEQ ID NO:420, SEQ ID NO:421, SEQ ID NO:422, SEQ ID NO:423, SEQ ID NO:424, SEQ ID NO:425, SEQ ID NO:426, SEQ ID NO:427, SEQ ID NO:428, SEQ ID NO:429, SEQ ID NO:430, SEQ ID NO:431, SEQ ID NO:432, SEQ ID NO:433, SEQ ID NO:434, SEQ ID NO:435, SEQ ID NO:436, SEQ ID NO:437, SEQ ID NO:438, SEQ ID NO:439, SEQ ID NO:440, SEQ ID NO:441, SEQ ID NO:442, SEQ ID NO:443, SEQ ID NO:444, SEQ ID NO:445, SEQ ID NO:446, SEQ ID NO:447, SEQ ID NO:448, SEQ ID NO:449, SEQ ID NO:450, SEQ ID NO:451, SEQ ID NO:452, SEQ ID NO:453, SEQ ID NO:454, SEQ ID NO:455, SEQ ID NO:456, SEQ ID NO:457, SEQ ID NO:458, SEQ ID NO:459, SEQ ID NO:460, SEQ ID NO:461, SEQ ID NO:462, SEQ ID NO:463, SEQ ID NO:464, SEQ ID NO:465, SEQ ID NO:466, SEQ ID NO:467, SEQ ID NO:468, SEQ ID NO:469, SEQ ID NO:470, SEQ ID NO:471, SEQ ID NO:472, SEQ ID NO:473, SEQ ID NO:474, SEQ ID NO:475, SEQ ID NO:476, SEQ ID NO:477, SEQ ID NO:478, SEQ ID NO:479, SEQ ID NO:480, SEQ ID NO:481, SEQ ID NO:482, SEQ ID NO:483, SEQ ID NO:484, SEQ ID NO:485, SEQ ID NO:486, SEQ ID NO:487, SEQ ID NO:488, SEQ ID NO:489, SEQ ID NO:490, SEQ ID NO:491, SEQ ID NO:492, SEQ ID NO:493, SEQ ID NO:494, SEQ ID NO:495, SEQ ID NO:496, SEQ ID NO:497, SEQ ID NO:498, SEQ ID NO:499, SEQ ID NO:500, SEQ ID NO:501, SEQ ID NO:502, SEQ ID NO:503, SEQ ID NO:504, SEQ ID NO:505, SEQ ID NO:506, SEQ ID NO:507, SEQ ID NO:508, SEQ ID NO:509, SEQ ID NO:510, SEQ ID NO:511, SEQ ID NO:512, SEQ ID NO:513, SEQ ID NO:514, SEQ ID NO:515, SEQ ID NO:516, SEQ ID NO:517, SEQ ID NO:518, SEQ ID NO:519, SEQ ID NO:520, SEQ ID NO:521, SEQ ID NO:522, SEQ ID NO:523, SEQ ID NO:524, SEQ ID NO:525, SEQ ID NO:526, SEQ ID NO:527, SEQ ID NO:528, SEQ ID NO:529, SEQ ID NO:530, SEQ ID NO:531, SEQ ID NO:532, SEQ ID NO:533, SEQ ID NO:534, SEQ ID

NO:535, SEQ ID NO:536, SEQ ID NO:537, SEQ ID NO:538, SEQ ID NO:539, SEQ ID NO:540, SEQ ID NO:541, SEQ ID NO:542, SEQ ID NO:543, SEQ ID NO:544, SEQ ID NO:545, SEQ ID NO:546, SEQ ID NO:547, SEQ ID NO:548, SEQ ID NO:549, SEQ ID NO:550, SEQ ID NO:551, SEQ ID NO:552, SEQ ID NO:553, SEQ ID NO:554, SEQ ID NO:555, SEQ ID NO:556, SEQ ID NO:557, SEQ ID NO:558, SEQ ID NO:559, SEQ ID NO:560, SEQ ID NO:561, SEQ ID NO:562, SEQ ID NO:563, SEQ ID NO:564, SEQ ID NO:565, SEQ ID NO:566, SEQ ID NO:567, SEQ ID NO:568, SEQ ID NO:569, SEQ ID NO:570, SEQ ID NO:571, SEQ ID NO:572, SEQ ID NO:573, SEQ ID NO:574, SEQ ID NO:575, SEQ ID NO:576, SEQ ID NO:577, SEQ ID NO:578, SEQ ID NO:579, SEQ ID NO:580, SEQ ID NO:581, SEQ ID NO:582, SEQ ID NO:583, SEQ ID NO:584, SEQ ID NO:585, SEQ ID NO:586, SEQ ID NO:587, SEQ ID NO:588, SEQ ID NO:589, SEQ ID NO:590, SEQ ID NO:591, SEQ ID NO:592, SEQ ID NO:593, SEQ ID NO:594, SEQ ID NO:595, SEQ ID NO:596, SEQ ID NO:597, SEQ ID NO:598, SEQ ID NO:599, SEQ ID NO:600, SEQ ID NO:601, SEQ ID NO:602, SEQ ID NO:603, SEQ ID NO:604, SEQ ID NO:605, SEQ ID NO:606, SEQ ID NO:607, SEQ ID NO:608, SEQ ID NO:609, SEQ ID NO:610, SEQ ID NO:611, SEQ ID NO:612, SEQ ID NO:613, SEQ ID NO:614, SEQ ID NO:615, SEQ ID NO:616, SEQ ID NO:617, SEQ ID NO:618, SEQ ID NO:619, SEQ ID NO:620, SEQ ID NO:621, SEQ ID NO:622, SEQ ID NO:623, SEQ ID NO:624, SEQ ID NO:625;

or to a complement of said sequence.

The invention also provides for proteins encoded by the above-described polynucleotides. In certain preferred embodiments, the polynucleotide is operably linked to an expression control sequence. The invention also provides a host cell, including bacterial, yeast, insect and mammalian cells, transformed with such polynucleotide compositions. Also provided by the present invention are organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein.

Processes are also provided for producing a protein, which comprise:

- (a) growing a culture of the host cell transformed with such polynucleotide compositions in a suitable culture medium; and
- (b) purifying the protein from the culture.

The protein produced according to such methods is also provided by the present invention.

Protein compositions of the present invention may further comprise a pharmaceutically acceptable carrier. Compositions comprising an antibody which specifically reacts with such protein are also provided by the present invention.

Methods are also provided for preventing, treating or ameliorating a medical condition which comprises administering to a mammalian subject a therapeutically effective amount of a composition comprising a protein of the present invention, and/or a polynucleotide of the present invention, and a pharmaceutically acceptable carrier.

#### DETAILED DESCRIPTION

The nucleotide sequences of the isolated cDNAs of the present invention are reported in the Sequence Listing below. Table 2 lists the "Clone ID Nos." assigned by applicants to each SEQ ID NO: in the Sequence Listing.

Table 2

Each pair of entries in this table consists of the SEQ ID NO (e.g., 1, 2, etc.) followed by the Clone ID No. for such sequence (e.g., YI116\_1, YI117\_1, etc.).

1	YI116_1	201	YJA47_1	401	YK297_1	601	YL210_1
2	YI117_1	202	YK102_1	402	YK298_1	602	YL211_1
3	YI118_1	203	YK103_1	403	YK299_1	603	YL212_1
4	YI119_1	204	YK104_1	404	YK29_1	604	YL213_1
5	YI120_1	205	YK105_1	405	YK2_1	605	YL214_1
6	YI122_1	206	YK106_1	406	YK300_1	606	YL215_1
7	YI123_1	207	YK107_1	407	YK301_1	607	YL216_1
8	YI124_1	208	YK108_1	408	YK302_1	608	YL217_1
9	YI125_1	209	YK109_1	409	YK303_1	609	YL218_1
10	YI126_1	210	YK10_1	410	YK304_1	610	YL219_1
11	YI127_1	211	YK110_1	411	YK305_1	611	YL21_1
12	YI128_1	212	YK111_1	412	YK306_1	612	YL220_1
13	YI129_1	213	YK112_1	413	YK307_1	613	YL221_1
14	YI130_1	214	YK113_1	414	YK308_1	614	YL222_1
15	YI131_1	215	YK114_1	415	YK309_1	615	YL223_1
16	YI132_1	216	YK115_1	416	YK30_1	616	YL224_1
17	YI133_1	217	YK116_1	417	YK310_1	617	YL225_1
18	YI135_1	218	YK117_1	418	YK311_1	618	YL226_1
19	YI136_1	219	YK118_1	419	YK312_1	619	YL227_1
20	YI137_1	220	YK119_1	420	YK313_1	620	YL228_1
21	YI138_1	221	YK11_1	421	YK316_1	621	YL229_1

22	YI139_1	222	YK120_1	422	YK31_1	622	YL22_1
23	YI13_1	223	YK121_1	423	YK320_1	623	YL230_1
24	YI140_1	224	YK122_1	424	YK326_1	624	YL231_1
25	YI141_1	225	YK123_1	425	YK32_1	625	YL232_1
26	YI142_1	226	YK124_1	426	YK33_1		
27	YI143_1	227	YK126_1	427	YK34_1		
28	YI144_1	228	YK127_1	428	YK35_1		
29	YI145_1	229	YK128_1	429	YK36_1		
30	YI146_1	230	YK129_1	430	YK37_1		
31	YI147_1	231	YK12_1	431	YK3_1		
32	YI148_1	232	YK130_1	432	YK40_1		
33	YI149_1	233	YK131_1	433	YK41_1		
34	YI14_1	234	YK132_1	434	YK42_1		
35	YI150_1	235	YK133_1	435	YK43_1		
36	YI151_1	236	YK134_1	436	YK44_1		
37	YI152_1	237	YK135_1	437	YK45_1		
38	YI153_1	238	YK136_1	438	YK47_1		
39	YI154_1	239	YK137_1	439	YK48_1		
40	YI155_1	240	YK138_1	440	YK49_1		
41	YI156_1	241	YK139_1	441	YK4_1		
42	YI157_1	242	YK13_1	442	YK50_1		
43	YI158_1	243	YK140_1	443	YK52_1		
44	YI159_1	244	YK141_1	444	YK53_1		
45	YI160_1	245	YK142_1	445	YK54_1		
46	YI161_1	246	YK144_1	446	YK55_1		
47	YI162_1	247	YK145_1	447	YK56_1		
48	YI163_1	248	YK146_1	448	YK57_1		
49	YI164_1	249	YK147_1	449	YK58_1		
50	YI165_1	250	YK148_1	450	YK5_1		
51	YI166_1	251	YK149_1	451	YK60_1		
52	YI167_1	252	YK150_1	452	YK63_1		
53	YI168_1	253	YK151_1	453	YK65_1		
54	YI169_1	254	YK152_1	454	YK66_1		
55	YI170_1	255	YK153_1	455	YK68_1		
56	YI171_1	256	YK154_1	456	YK69_1		
57	YI172_1	257	YK155_1	457	YK6_1		
58	YI173_1	258	YK157_1	458	YK70_1		

59	YI174_1	259	YK158_1	459	YK71_1
60	YI175_1	260	YK159_1	460	YK72_1
61	YI176_1	261	YK15_1	461	YK73_1
62	YI177_1	262	YK160_1	462	YK75_1
63	YI179_1	263	YK161_1	463	YK77_1
64	YI180_1	264	YK162_1	464	YK79_1
65	YI181_1	265	YK163_1	465	YK7_1
66	YI182_1	266	YK164_1	466	YK80_1
67	YI183_1	267	YK165_1	467	YK81_1
68	YI185_1	268	YK166_1	468	YK83_1
69	YI186_1	269	YK167_1	469	YK85_1
70	YI188_1	270	YK168_1	470	YK86_1
71	YI189_1	271	YK169_1	471	YK87_1
72	YI19_1	272	YK16_1	472	YK88_1
73	YI20_1	273	YK170_1	473	YK8_1
74	YI21_1	274	YK171_1	474	YK90_1
75	YI22_1	275	YK172_1	475	YK92_1
76	YI23_1	276	YK175_1	476	YK93_1
77	YI24_1	277	YK176_1	477	YK94_1
78	YI25_1	278	YK177_1	478	YK95_1
79	YI26_1	279	YK178_1	479	YK96_1
80	YI27_1	280	YK179_1	480	YK97_1
81	YI28_1	281	YK17_1	481	YK98_1
82	YI29_1	282	YK180_1	482	YK99_1
83	YI2_1	283	YK181_1	483	YK9_1
84	YI30_1	284	YK182_1	484	YKA1_1
85	YI33_1	285	YK183_1	485	YKA2_1
86	YI34_1	286	YK184_1	486	YKA3_1
87	YI36_1	287	YK185_1	487	YL100_1
88	YI37_1	288	YK186_1	488	YL101_1
89	YI38_1	289	YK187_1	489	YL102_1
90	YI39_1	290	YK188_1	490	YL103_1
91	YI40_1	291	YK189_1	491	YL104_1
92	YI41_1	292	YK18_1	492	YL105_1
93	YI42_1	293	YK191_1	493	YL106_1
94	YI43_1	294	YK192_1	494	YL107_1
95	YI46_1	295	YK193_1	495	YL108_1

96	YI47_1	296	YK194_1	496	YL109_1
97	YI48_1	297	YK195_1	497	YL110_1
98	YI49_1	298	YK196_1	498	YL111_1
99	YI50_1	299	YK197_1	499	YL112_1
100	YI51_1	300	YK198_1	500	YL113_1
101	YI53_1	301	YK199_1	501	YL114_1
102	YI54_1	302	YK200_1	502	YL115_1
103	YI55_1	303	YK201_1	503	YL116_1
104	YI56_1	304	YK202_1	504	YL117_1
105	YI57_1	305	YK203_1	505	YL118_1
106	YI58_1	306	YK204_1	506	YL119_1
107	YI59_1	307	YK205_1	507	YL120_1
108	YI60_1	308	YK206_1	508	YL121_1
109	YI61_1	309	YK207_1	509	YL122_1
110	YI62_1	310	YK208_1	510	YL123_1
111	YI63_1	311	YK209_1	511	YL124_1
112	YI64_1	312	YK210_1	512	YL125_1
113	YI65_1	313	YK211_1	513	YL126_1
114	YI66_1	314	YK212_1	514	YL127_1
115	YI67_1	315	YK213_1	515	YL128_1
116	YI68_1	316	YK214_1	516	YL129_1
117	YI69_1	317	YK215_1	517	YL130_1
118	YI70_1	318	YK216_1	518	YL131_1
119	YI71_1	319	YK217_1	519	YL132_1
120	YI72_1	320	YK218_1	520	YL133_1
121	YI73_1	321	YK219_1	521	YL134_1
122	YI74_1	322	YK220_1	522	YL135_1
123	YI75_1	323	YK221_1	523	YL136_1
124	YI76_1	324	YK222_1	524	YL137_1
125	YI77_1	325	YK223_1	525	YL138_1
126	YI78_1	326	YK224_1	526	YL139_1
127	YI79_1	327	YK225_1	527	YL140_1
128	YI80_1	328	YK226_1	528	YL141_1
129	YI81_1	329	YK227_1	529	
130	YI82_1	330	YK228_1	530	
131	YI83_1	331	YK229_1	531	
132	YI84_1	332	YK230_1	532	

133	YI89_1	333	YK230_1	533	YL142_1
134	YI90_1	334	YK231_1	534	YL143_1
135	YI91_1	335	YK232_1	535	YL144_1
136	YI92_1	336	YK233_1	536	YL145_1
137	YI93_1	337	YK234_1	537	YL146_1
138	YI94_1	338	YK235_1	538	YL147_1
139	YI95_1	339	YK236_1	539	YL148_1
140	YI96_1	340	YK237_1	540	YL149_1
141	YI97_1	341	YK238_1	541	YL150_1
142	YI98_1	342	YK239_1	542	YL151_1
143	YI99_1	343	YK240_1	543	YL152_1
144	YIA17_1	344	YK241_1	544	YL153_1
145	YIA18_1	345	YK242_1	545	YL154_1
146	YIA19_1	346	YK243_1	546	YL155_1
147	YIA1_1	347	YK244_1	547	YL156_1
148	YIA20_1	348	YK245_1	548	YL157_1
149	YIA21_1	349	YK246_1	549	YL158_1
150	YJ11_1	350	YK247_1	550	YL15_1
151	YJ12_1	351	YK248_1	551	YL160_1
152	YJ13_1	352	YK249_1	552	YL161_1
153	YJ14_1	353	YK24_1	553	YL163_1
154	YJ15_1	354	YK250_1	554	YL164_1
155	YJ16_1	355	YK252_1	555	YL165_1
156	YJ17_1	356	YK253_1	556	YL166_1
157	YJ18_1	357	YK254_1	557	YL167_1
158	YJ19_1	358	YK255_1	558	YL168_1
159	YJ1_1	359	YK256_1	559	YL169_1
160	YJ20_1	360	YK257_1	560	YL16_1
161	YJ21_1	361	YK258_1	561	YL170_1
162	YJ22_1	362	YK259_1	562	YL171_1
163	YJ24_1	363	YK260_1	563	YL172_1
164	YJ25_1	364	YK262_1	564	YL173_1
165	YJ26_1	365	YK264_1	565	YL174_1
166	YJ27_1	366	YK265_1	566	YL175_1
167	YJ2_1	367	YK266_1	567	YL176_1
168	YJ30_1	368	YK267_1	568	YL177_1
169	YJ31_1	369	YK268_1	569	YL178_1

170	YJ34_1	370	YK269_1	570	YL17_1
171	YJ35_1	371	YK26_1	571	YL180_1
172	YJ36_1	372	YK270_1	572	YL181_1
173	YJ37_1	373	YK271_1	573	YL182_1
174	YJ38_1	374	YK272_1	574	YL184_1
175	YJ4_1	375	YK273_1	575	YL186_1
176	YJ8_1	376	YK274_1	576	YL187_1
177	YJ9_1	377	YK275_1	577	YL188_1
178	YJA1_1	378	YK276_1	578	YL189_1
179	YJA23_1	379	YK277_1	579	YL190_1
180	YJA25_1	380	YK278_1	580	YL191_1
181	YJA26_1	381	YK279_1	581	YL192_1
182	YJA28_1	382	YK27_1	582	YL193_1
183	YJA29_1	383	YK280_1	583	YL195_1
184	YJA30_1	384	YK281_1	584	YL196_1
185	YJA31_1	385	YK282_1	585	YL197_1
186	YJA32_1	386	YK283_1	586	YL198_1
187	YJA33_1	387	YK284_1	587	YL199_1
188	YJA34_1	388	YK285_1	588	YL19_1
189	YJA35_1	389	YK286_1	589	YL1_1
190	YJA36_1	390	YK287_1	590	YL200_1
191	YJA37_1	391	YK288_1	591	YL201_1
192	YJA38_1	392	YK289_1	592	YL202_1
193	YJA39_1	393	YK28_1	593	YL203_1
194	YJA40_1	394	YK290_1	594	YL204_1
195	YJA41_1	395	YK291_1	595	YL205_1
196	YJA42_1	396	YK292_1	596	YL206_1
197	YJA43_1	397	YK293_1	597	YL207_1
198	YJA44_1	398	YK294_1	598	YL208_1
199	YJA45_1	399	YK295_1	599	YL209_1
200	YJA46_1	400	YK296_1	600	YL20_1

The "Clone ID No." for a particular clone consists of one or two letters followed by a number. The letters designate the tissue source from which the cDNA for that clone was isolated, and these sources are listed in Table 3 below.



TABLE 3

Sel.	Species	Stage	Tissue	Cell Type	Treatment
YI	Human	Adult	Brain	N/A	None
YIA	Human	Adult	Thymus	N/A	None
YJ	Human	Adult	Kidney	293 embryonal carcinoma line	None
YJA	Human	Adult	Retina	WERI-Rb1 retinoblastoma line	None
YK	Human	Adult	Thymus	N/A	None
YKA	Human	Adult	Fibrosarcoma	Epithelial HT-1080 line	None
YL	Human	Adult	Spleen	N/A	None

Thus, the tissue source for a particular cDNA sequence can be identified in Table 3 by the one and two letter designations used in the relevant "Clone ID No." in Table 2. For example, a cDNA clone designated as "YI116\_1" would have been isolated from a human adult brain library (i.e., selection "YI") as indicated in Table 3.

As used herein, "polynucleotide" includes single- and double-stranded RNAs, DNAs and RNA:DNA hybrids.

As used herein a "secreted" protein is one which, when expressed in a suitable host cell, is transported across or through a membrane, including transport as a result of signal sequences in its amino acid sequence. "Secreted" proteins include without limitation proteins secreted wholly (e.g., soluble proteins) or partially (e.g., receptors) from the cell in which they are expressed. "Secreted" proteins also include without limitation proteins which are transported across the membrane of the endoplasmic reticulum.

Fragments of the proteins of the present invention which are capable of exhibiting biological activity are also encompassed by the present invention. Fragments of the protein may be in linear form or they may be cyclized using known methods, for example, as described in H.U. Saragovi, *et al.*, Bio/Technology **10**, 773-778 (1992) and in R.S. McDowell, *et al.*, J. Amer. Chem. Soc. **114**, 9245-9253 (1992), both of which are incorporated herein by reference. Such fragments may be fused to carrier molecules such as immunoglobulins for many purposes, including increasing the valency of protein binding sites. For example, fragments of the protein may be fused through "linker" sequences to the Fc portion of an immunoglobulin. For a bivalent form of the protein, such a fusion could be to the Fc portion of an IgG molecule. Other immunoglobulin isotypes may also be used to generate such fusions. For example, a protein - IgM fusion would generate a decavalent form of the protein of the invention.

The present invention also provides both full-length and mature forms of the disclosed proteins. The full-length form of the such proteins is identified in the sequence listing by translation of the nucleotide sequence of each disclosed clone. The

mature form(s) of such protein may be obtained by expression of the disclosed full-length polynucleotide (preferably those deposited with ATCC) in a suitable mammalian cell or other host cell. The sequence(s) of the mature form(s) of the protein may also be determinable from the amino acid sequence of the full-length form.

The present invention also provides genes corresponding to the polynucleotide sequences disclosed herein. "Corresponding genes" are the regions of the genome that are transcribed to produce the mRNAs from which cDNA polynucleotide sequences are derived and may include contiguous regions of the genome necessary for the regulated expression of such genes. Corresponding genes may therefore include but are not limited to coding sequences, 5' and 3' untranslated regions, alternatively spliced exons, introns, promoters, enhancers, and silencer or suppressor elements. The corresponding genes can be isolated in accordance with known methods using the sequence information disclosed herein. Such methods include the preparation of probes or primers from the disclosed sequence information for identification and/or amplification of genes in appropriate genomic libraries or other sources of genomic materials. An "isolated gene" is a gene that has been separated from the adjacent coding sequences, if any, present in the genome of the organism from which the gene was isolated.

The chromosomal location corresponding to the polynucleotide sequences disclosed herein may also be determined, for example by hybridizing appropriately labeled polynucleotides of the present invention to chromosomes *in situ*. It may also be possible to determine the corresponding chromosomal location for a disclosed polynucleotide by identifying significantly similar nucleotide sequences in public databases, such as expressed sequence tags (ESTs), that have already been mapped to particular chromosomal locations. For at least some of the polynucleotide sequences disclosed herein, public database sequences having at least some similarity to the polynucleotide of the present invention have been listed by database accession number. Searches using the GenBank accession numbers of these public database sequences can then be performed at an Internet site provided by the National Center for Biotechnology Information having the address [www.ncbi.nlm.nih.gov/UniGene](http://www.ncbi.nlm.nih.gov/UniGene), in order to identify "UniGene clusters" of overlapping sequences. Many of the "UniGene clusters" so identified will already have been mapped to particular chromosomal sites.

Organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein are provided. The desired change in gene expression can be achieved through the use of antisense polynucleotides or ribozymes that bind and/or cleave the mRNA transcribed from the gene (Albert and Morris, 1994, *Trends Pharmacol. Sci.* 15(7): 250- 254; Lavarosky *et al.*,

1997, *Biochem. Mol. Med.* 62(1): 11-22; and Hampel, 1998, *Prog. Nucleic Acid Res. Mol. Biol.* 58: 1-39; all of which are incorporated by reference herein). Transgenic animals that have multiple copies of the gene(s) corresponding to the polynucleotide sequences disclosed herein, preferably produced by transformation of cells with genetic constructs that are stably maintained within the transformed cells and their progeny, are provided. Transgenic animals that have modified genetic control regions that increase or reduce gene expression levels, or that change temporal or spatial patterns of gene expression, are also provided (see European Patent No. 0 649 464 B1, incorporated by reference herein). In addition, organisms are provided in which the gene(s) corresponding to the polynucleotide sequences disclosed herein have been partially or completely inactivated, through insertion of extraneous sequences into the corresponding gene(s) or through deletion of all or part of the corresponding gene(s). Partial or complete gene inactivation can be accomplished through insertion, preferably followed by imprecise excision, of transposable elements (Plasterk, 1992, *Bioessays* 14(9): 629-633; Zwaal *et al.*, 1993, *Proc. Natl. Acad. Sci. USA* 90(16): 7431-7435; Clark *et al.*, 1994, *Proc. Natl. Acad. Sci. USA* 91(2): 719-722; all of which are incorporated by reference herein), or through homologous recombination, preferably detected by positive/negative genetic selection strategies (Mansour *et al.*, 1988, *Nature* 336: 348-352; U.S. Patent Nos. 5,464,764; 5,487,992; 5,627,059; 5,631,153; 5,614,396; 5,616,491; and 5,679,523; all of which are incorporated by reference herein). These organisms with altered gene expression are preferably eukaryotes and more preferably are mammals. Such organisms are useful for the development of non-human models for the study of disorders involving the corresponding gene(s), and for the development of assay systems for the identification of molecules that interact with the protein product(s) of the corresponding gene(s).

Where the protein of the present invention is membrane-bound (e.g., is a receptor), the present invention also provides for soluble forms of such protein. In such forms part or all of the intracellular and transmembrane domains of the protein are deleted such that the protein is fully secreted from the cell in which it is expressed. The intracellular and transmembrane domains of proteins of the invention can be identified in accordance with known techniques for determination of such domains from sequence information.

Proteins and protein fragments of the present invention include proteins with amino acid sequence lengths that are at least 25% (more preferably at least 50%, and most preferably at least 75%) of the length of a disclosed protein and have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% or 95% identity) with that disclosed protein, where sequence identity is determined by

comparing the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Also included in the present invention are proteins and protein fragments that contain a segment preferably comprising 8 or more (more preferably 20 or more, most preferably 30 or more) contiguous amino acids that shares at least 75% sequence identity (more preferably, at least 85% identity; most preferably at least 95% identity) with any such segment of any of the disclosed proteins.

In particular, sequence identity may be determined using WU-BLAST (Washington University BLAST) version 2.0 software, which builds upon WU-BLAST version 1.4, which in turn is based on the public domain NCBI-BLAST version 1.4 (Altschul and Gish, 1996, Local alignment statistics, Doolittle *ed.*, *Methods in Enzymology* 266: 460-480; Altschul *et al.*, 1990, Basic local alignment search tool, *Journal of Molecular Biology* 215: 403-410; Gish and States, 1993, Identification of protein coding regions by database similarity search, *Nature Genetics* 3: 266-272; Karlin and Altschul, 1993, Applications and statistics for multiple high-scoring segments in molecular sequences, *Proc. Natl. Acad. Sci. USA* 90: 5873-5877; all of which are incorporated by reference herein). WU-BLAST version 2.0 executable programs for several UNIX platforms can be downloaded from the Internet file-transfer protocol (FTP) site <ftp://blast.wustl.edu/blast/executables>. The complete suite of search programs (BLASTP, BLASTN, BLASTX, TBLASTN, and TBLASTX) is provided at that site, in addition to several support programs. WU-BLAST 2.0 is copyrighted and may not be sold or redistributed in any form or manner without the express written consent of the author; but the posted executables may otherwise be freely used for commercial, nonprofit, or academic purposes. In all search programs in the suite -- BLASTP, BLASTN, BLASTX, TBLASTN and TBLASTX -- the gapped alignment routines are integral to the database search itself, and thus yield much better sensitivity and selectivity while producing the more easily interpreted output. Gapping can optionally be turned off in all of these programs, if desired. The default penalty (Q) for a gap of length one is Q=9 for proteins and BLASTP, and Q=10 for BLASTN, but may be changed to any integer value including zero, one through eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. The default per-residue penalty for extending a gap (R) is R=2 for proteins and BLASTP, and R=10 for BLASTN, but may be changed to any integer value including zero, one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. Any combination of values for Q and R can be used in order to align sequences so as to maximize overlap and identity

while minimizing sequence gaps. The default amino acid comparison matrix is BLOSUM62, but other amino acid comparison matrices such as PAM can be utilized.

Species homologues of the disclosed polynucleotides and proteins are also provided by the present invention. As used herein, a "species homologue" is a protein or polynucleotide with a different species of origin from that of a given protein or polynucleotide, but with significant sequence similarity to the given protein or polynucleotide. Preferably, polynucleotide species homologues have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, and protein species homologues have at least 30% sequence identity (more preferably, at least 45% identity; most preferably at least 60% identity) with the given protein, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides or the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Species homologues may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from the desired species. Preferably, species homologues are those isolated from mammalian species. Most preferably, species homologues are those isolated from certain mammalian species such as, for example, *Pan troglodytes*, *Gorilla gorilla*, *Pongo pygmaeus*, *Hylobates concolor*, *Macaca mulatta*, *Papio papio*, *Papio hamadryas*, *Cercopithecus aethiops*, *Cebus capucinus*, *Aotus trivirgatus*, *Sanguinus oedipus*, *Microcebus murinus*, *Mus musculus*, *Rattus norvegicus*, *Cricetulus griseus*, *Felis catus*, *Mustela vison*, *Canis familiaris*, *Oryctolagus cuniculus*, *Bos taurus*, *Ovis aries*, *Sus scrofa*, and *Equus caballus*, for which genetic maps have been created allowing the identification of syntenic relationships between the genomic organization of genes in one species and the genomic organization of the related genes in another species (O'Brien and Seuánez, 1988, *Ann. Rev. Genet.* 22: 323-351; O'Brien *et al.*, 1993, *Nature Genetics* 3:103-112; Johansson *et al.*, 1995, *Genomics* 25: 682- 690; Lyons *et al.*, 1997, *Nature Genetics* 15: 47-56; O'Brien *et al.*, 1997, *Trends in Genetics* 13(10): 393-399; Carver and Stubbs, 1997, *Genome Research* 7:1123-1137; all of which are incorporated by reference herein).

The invention also encompasses allelic variants of the disclosed polynucleotides or proteins; that is, naturally-occurring alternative forms of the isolated polynucleotides which also encode proteins which are identical or have significantly similar sequences to those encoded by the disclosed polynucleotides. Preferably, allelic variants have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides when

aligned so as to maximize overlap and identity while minimizing sequence gaps. Allelic variants may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from individuals of the appropriate species.

The invention also includes polynucleotides with sequences complementary to those of the polynucleotides disclosed herein.

The present invention also includes polynucleotides that hybridize under reduced stringency conditions, more preferably stringent conditions, and most preferably highly stringent conditions, to polynucleotides described herein. Examples of stringency conditions are shown in the table below: highly stringent conditions are those that are at least as stringent as, for example, conditions A-F; stringent conditions are at least as stringent as, for example, conditions G-L; and reduced stringency conditions are at least as stringent as, for example, conditions M- R.

Stringency Condition	Polynucleotide Hybrid	Hybrid Length (bp) <sup>†</sup>	Hybridization Temperature and Buffer <sup>†</sup>	Wash Temperature and Buffer <sup>†</sup>
A	DNA:DNA	≥ 50	65°C; 1xSSC -or- 42°C; 1xSSC, 50% formamide	65°C; 0.3xSSC
B	DNA:DNA	<50	T <sub>B</sub> <sup>*</sup> ; 1xSSC	T <sub>B</sub> <sup>*</sup> ; 1xSSC
C	DNA:RNA	≥ 50	67°C; 1xSSC -or- 45°C; 1xSSC, 50% formamide	67°C; 0.3xSSC
D	DNA:RNA	<50	T <sub>D</sub> <sup>*</sup> ; 1xSSC	T <sub>D</sub> <sup>*</sup> ; 1xSSC
E	RNA:RNA	≥ 50	70°C; 1xSSC -or- 50°C; 1xSSC, 50% formamide	70°C; 0.3xSSC
F	RNA:RNA	<50	T <sub>F</sub> <sup>*</sup> ; 1xSSC	T <sub>F</sub> <sup>*</sup> ; 1xSSC
G	DNA:DNA	≥ 50	65°C; 4xSSC -or- 42°C; 4xSSC, 50% formamide	65°C; 1xSSC
H	DNA:DNA	<50	T <sub>H</sub> <sup>*</sup> ; 4xSSC	T <sub>H</sub> <sup>*</sup> ; 4xSSC
I	DNA:RNA	≥ 50	67°C; 4xSSC -or- 45°C; 4xSSC, 50% formamide	67°C; 1xSSC
J	DNA:RNA	<50	T <sub>J</sub> <sup>*</sup> ; 4xSSC	T <sub>J</sub> <sup>*</sup> ; 4xSSC
K	RNA:RNA	≥ 50	70°C; 4xSSC -or- 50°C; 4xSSC, 50% formamide	67°C; 1xSSC
L	RNA:RNA	<50	T <sub>L</sub> <sup>*</sup> ; 2xSSC	T <sub>L</sub> <sup>*</sup> ; 2xSSC
M	DNA:DNA	≥ 50	50°C; 4xSSC -or- 40°C; 6xSSC, 50% formamide	50°C; 2xSSC
N	DNA:DNA	<50	T <sub>N</sub> <sup>*</sup> ; 6xSSC	T <sub>N</sub> <sup>*</sup> ; 6xSSC
O	DNA:RNA	≥ 50	55°C; 4xSSC -or- 42°C; 6xSSC, 50% formamide	55°C; 2xSSC
P	DNA:RNA	<50	T <sub>P</sub> <sup>*</sup> ; 6xSSC	T <sub>P</sub> <sup>*</sup> ; 6xSSC
Q	RNA:RNA	≥ 50	60°C; 4xSSC -or- 45°C; 6xSSC, 50% formamide	60°C; 2xSSC
R	RNA:RNA	<50	T <sub>R</sub> <sup>*</sup> ; 4xSSC	T <sub>R</sub> <sup>*</sup> ; 4xSSC

†: The hybrid length is that anticipated for the hybridized region(s) of the hybridizing polynucleotides. When hybridizing a polynucleotide to a target polynucleotide of unknown sequence, the hybrid length is assumed to be that of the hybridizing polynucleotide. When polynucleotides of known sequence are hybridized, the hybrid length can be determined by aligning the sequences of the polynucleotides and identifying the region or regions of optimal sequence complementarity.

†: SSPE (1xSSPE is 0.15M NaCl, 10mM NaH<sub>2</sub>PO<sub>4</sub>, and 1.25mM EDTA, pH 7.4) can be substituted for SSC (1xSSC is 0.15M NaCl and 15mM sodium citrate) in the hybridization and wash buffers; washes are performed for 15 minutes after hybridization is complete.

\*T<sub>B</sub> - T<sub>R</sub>: The hybridization temperature for hybrids anticipated to be less than 50 base pairs in length should be 5-10°C less than the melting temperature (T<sub>m</sub>) of the hybrid, where T<sub>m</sub> is determined according to the following equations. For hybrids less than 18 base pairs in length, T<sub>m</sub>(°C) = 2(# of A + T bases) + 4(# of G + C bases). For hybrids between 18 and 49 base pairs in length, T<sub>m</sub>(°C) = 81.5 + 16.6(log<sub>10</sub>[Na<sup>+</sup>]) + 0.41(%G+C) - (600/N), where N is the number of bases in the hybrid, and [Na<sup>+</sup>] is the concentration of sodium ions in the hybridization buffer ([Na<sup>+</sup>] for 1xSSC = 0.165 M).

Additional examples of stringency conditions for polynucleotide hybridization are provided in Sambrook, J., E.F. Fritsch, and T. Maniatis, 1989, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, chapters 9 and 11, and *Current Protocols in Molecular Biology*, 1995, F.M. Ausubel et al., eds., John Wiley & Sons, Inc., sections 2.10 and 6.3-6.4, incorporated herein by reference.

Preferably, each such hybridizing polynucleotide has a length that is at least 25% (more preferably at least 50%, and most preferably at least 75%) of the length of the polynucleotide of the present invention to which it hybridizes, and has at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% or 95% identity) with the polynucleotide of the present invention to which it hybridizes, where sequence identity is determined by comparing the sequences of the hybridizing polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps.

The isolated polynucleotide of the invention may contain sequences at its 5' and/or 3' end that are derived from linker, polylinker, or multiple cloning site sequences commonly found in vectors such as the pMT2 or pED expression vectors (see below). For example, sequences such as SEQ ID NO:626, SEQ ID NO:627, or SEQ ID NO:628 may be found at the 5' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 3' end. Similarly, sequences such as SEQ ID NO:629, SEQ ID NO:630, or SEQ ID NO:631 may be found at the 3' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 5' end. In addition, variants of these linker sequences may be present in isolated polynucleotides of the invention, which linker variants vary from SEQ ID NO:626 through SEQ ID NO:631 by the alteration, insertion, or deletion of

one or more nucleotides. Therefore, a preferred embodiment of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 25 and ending at nucleotide (N-25) of the SEQ ID NO for that polynucleotide, where N represents the total number of nucleotides in the sequence. As a specific example, a preferred embodiment of the invention comprises the nucleotide sequence of SEQ ID NO:1 from nucleotide 25 to nucleotide 1905, where the total number of nucleotides (N) in SEQ ID NO:1 is 1930, and N-25 equals 1905. More preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 30 and ending at nucleotide (N-30) of the SEQ ID NO for that polynucleotide. Most preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 35 and ending at nucleotide (N-35) of the SEQ ID NO for that polynucleotide. Similarly, additional embodiments are those nucleotide sequences that extend from nucleotide 40 to nucleotide (N-40), or from nucleotide 45 to nucleotide (N-45), or from nucleotide 50 to nucleotide (N-50), or from nucleotide 60 to nucleotide (N-60), or from nucleotide 65 to nucleotide (N-65), or from nucleotide 70 to nucleotide (N-70), or from nucleotide 75 to nucleotide (N-75), or from nucleotide 80 to nucleotide (N-80), etc., for any of the polynucleotides disclosed herein. Further preferred embodiments are those nucleotide sequences that are subsequences of the nucleotide sequences disclosed herein, beginning at any nucleotide position selected from the group consisting of nucleotide 5, nucleotide 10, nucleotide 15, nucleotide 20, nucleotide 25, nucleotide 30, nucleotide 35, nucleotide 40, nucleotide 45, nucleotide 50, nucleotide 55, nucleotide 60, nucleotide 65, nucleotide 70, nucleotide 75, or nucleotide 80, and ending at any nucleotide position selected from the group consisting of nucleotide (N-5), nucleotide (N-10), nucleotide (N-15), nucleotide (N-20), nucleotide (N-25), nucleotide (N-30), nucleotide (N-35), nucleotide (N-40), nucleotide (N-45), nucleotide (N-50), nucleotide (N-55), nucleotide (N-60), nucleotide (N-65), nucleotide (N-70), nucleotide (N-75), or nucleotide (N-80), wherein N is the total number of nucleotides disclosed for a particular SEQ ID NO.

The isolated polynucleotide of the invention may be operably linked to an expression control sequence such as the pMT2 or pED expression vectors disclosed in Kaufman *et al.*, Nucleic Acids Res. 19, 4485-4490 (1991), in order to produce the protein recombinantly. Many suitable expression control sequences are known in the art. General methods of expressing recombinant proteins are also known and are exemplified in R. Kaufman, Methods in Enzymology 185, 537-566 (1990). As defined herein "operably linked" means that the isolated polynucleotide of the invention and an expression control sequence are situated within a vector or cell in such a way that the



protein is expressed by a host cell which has been transformed (transfected) with the ligated polynucleotide/expression control sequence.

A number of types of cells may act as suitable host cells for expression of the protein. Mammalian host cells include, for example, monkey COS cells, Chinese Hamster Ovary (CHO) cells, human kidney 293 cells, human epidermal A431 cells, human Colo205 cells, 3T3 cells, CV-1 cells, other transformed primate cell lines, normal diploid cells, cell strains derived from in vitro culture of primary tissue, primary explants, HeLa cells, mouse L cells, BHK, HL-60, U937, HaK or Jurkat cells.

Alternatively, it may be possible to produce the protein in lower eukaryotes such as yeast or in prokaryotes such as bacteria. Potentially suitable yeast strains include *Saccharomyces cerevisiae*, *Schizosaccharomyces pombe*, *Kluyveromyces* strains, *Candida*, or any yeast strain capable of expressing heterologous proteins. Potentially suitable bacterial strains include *Escherichia coli*, *Bacillus subtilis*, *Salmonella typhimurium*, or any bacterial strain capable of expressing heterologous proteins. If the protein is made in yeast or bacteria, it may be necessary to modify the protein produced therein, for example by phosphorylation or glycosylation of the appropriate sites, in order to obtain the functional protein. Such covalent attachments may be accomplished using known chemical or enzymatic methods.

The protein may also be produced by operably linking the isolated polynucleotide of the invention to suitable control sequences in one or more insect expression vectors, and employing an insect expression system. Materials and methods for baculovirus/insect cell expression systems are commercially available in kit form from, e.g., Invitrogen, San Diego, California, U.S.A. (the MaxBac® kit), and such methods are well known in the art, as described in Summers and Smith, Texas Agricultural Experiment Station Bulletin No. 1555 (1987), incorporated herein by reference. As used herein, an insect cell capable of expressing a polynucleotide of the present invention is "transformed."

The protein of the invention may be prepared by culturing transformed host cells under culture conditions suitable to express the recombinant protein. The resulting expressed protein may then be purified from such culture (i.e., from culture medium or cell extracts) using known purification processes, such as gel filtration and ion exchange chromatography. The purification of the protein may also include an affinity column containing agents which will bind to the protein; one or more column steps over such affinity resins as concanavalin A-agarose, heparin- toyopearl® or Cibacrom blue 3GA Sepharose®; one or more steps involving hydrophobic interaction chromatography using such resins as phenyl ether, butyl ether, or propyl ether; or immunoaffinity chromatography.

Alternatively, the protein of the invention may also be expressed in a form which will facilitate purification. For example, it may be expressed as a fusion protein, such as those of maltose binding protein (MBP), glutathione-S-transferase (GST) or thioredoxin (TRX). Kits for expression and purification of such fusion proteins are commercially available from New England BioLabs (Beverly, MA), Pharmacia (Piscataway, NJ) and Invitrogen Corporation (Carlsbad, CA), respectively. The protein can also be tagged with an epitope and subsequently purified by using a specific antibody directed to such epitope. One such epitope ("Flag") is commercially available from the Eastman Kodak Company (New Haven, CT).

Finally, one or more reverse-phase high performance liquid chromatography (RP-HPLC) steps employing hydrophobic RP-HPLC media, e.g., silica gel having pendant methyl or other aliphatic groups, can be employed to further purify the protein. Some or all of the foregoing purification steps, in various combinations, can also be employed to provide a substantially homogeneous isolated recombinant protein. The protein thus purified is substantially free of other mammalian proteins and is defined in accordance with the present invention as an "isolated protein."

The protein of the invention may also be expressed as a product of transgenic animals, e.g., as a component of the milk of transgenic cows, goats, pigs, or sheep which are characterized by somatic or germ cells containing a nucleotide sequence encoding the protein.

The protein may also be produced by known conventional chemical synthesis. Methods for constructing the proteins of the present invention by synthetic means are known to those skilled in the art. The synthetically-constructed protein sequences, by virtue of sharing primary, secondary or tertiary structural and/or conformational characteristics with proteins may possess biological properties in common therewith, including protein activity. Thus, they may be employed as biologically active or immunological substitutes for natural, purified proteins in screening of therapeutic compounds and in immunological processes for the development of antibodies.

The proteins provided herein also include proteins characterized by amino acid sequences similar to those of purified proteins but into which modification are naturally provided or deliberately engineered. For example, modifications in the peptide or DNA sequences can be made by those skilled in the art using known techniques. Modifications of interest in the protein sequences may include the alteration, substitution, replacement, insertion or deletion of a selected amino acid residue in the coding sequence. For example, one or more of the cysteine residues may be deleted or replaced with another amino acid to alter the conformation of the molecule. Techniques for such alteration, substitution, replacement, insertion or

deletion are well known to those skilled in the art (see, e.g., U.S. Patent No. 4,518,584). Preferably, such alteration, substitution, replacement, insertion or deletion retains the desired activity of the protein.

Other fragments and derivatives of the sequences of proteins which would be expected to retain protein activity in whole or in part and may thus be useful for screening or other immunological methodologies may also be easily made by those skilled in the art given the disclosures herein. Such modifications are believed to be encompassed by the present invention.

### USES AND BIOLOGICAL ACTIVITY

The polynucleotides and proteins of the present invention are expected to exhibit one or more of the uses or biological activities (including those associated with assays cited herein) identified below. Uses or activities described for proteins of the present invention may be provided by administration or use of such proteins or by administration or use of polynucleotides encoding such proteins (such as, for example, in gene therapies or vectors suitable for introduction of DNA).

#### Research Uses and Utilities

The polynucleotides provided by the present invention can be used by the research community for various purposes. The primary use of polynucleotides of the invention which are sESTs is as probes for the identification and isolation of full-length cDNAs and genomic DNA molecules which correspond (i.e., is a longer polynucleotide sequence of which substantially the entire sEST is a fragment in the case of a full-length cDNA, or which encodes the sEST in the case of a genomic DNA molecule) to such sESTs. Techniques for use of such sequences as probes for larger cDNAs or genomic molecules are well known in the art.

The polynucleotides can also be used to express recombinant protein for analysis, characterization or therapeutic use; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in disease states); as molecular weight markers on Southern gels; as chromosome markers or tags (when labeled) to identify chromosomes or to map related gene positions; to compare with endogenous DNA sequences in patients to identify potential genetic disorders; as probes to hybridize and thus discover novel, related DNA sequences; as a source of information to derive PCR primers for genetic fingerprinting; as a probe to "subtract-out" known sequences in the process of discovering other novel polynucleotides; for selecting and making oligomers for attachment to a "gene chip" or other support, including for examination of

expression patterns; to raise anti-protein antibodies using DNA immunization techniques; and as an antigen to raise anti-DNA antibodies or elicit another immune response. Where the polynucleotide encodes a protein which binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the polynucleotide can also be used in interaction trap assays (such as, for example, that described in Gyuris et al., Cell 75:791-803 (1993)) to identify polynucleotides encoding the other protein with which binding occurs or to identify inhibitors of the binding interaction.

The proteins provided by the present invention can similarly be used in assay to determine biological activity, including in a panel of multiple proteins for high-throughput screening; to raise antibodies or to elicit another immune response; as a reagent (including the labeled reagent) in assays designed to quantitatively determine levels of the protein (or its receptor) in biological fluids; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in a disease state); and, of course, to isolate correlative receptors or ligands. Where the protein binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the protein can be used to identify the other protein with which binding occurs or to identify inhibitors of the binding interaction. Proteins involved in these binding interactions can also be used to screen for peptide or small molecule inhibitors or agonists of the binding interaction.

Any or all of these research utilities are capable of being developed into reagent grade or kit format for commercialization as research products.

Methods for performing the uses listed above are well known to those skilled in the art. References disclosing such methods include without limitation "Molecular Cloning: A Laboratory Manual", 2d ed., Cold Spring Harbor Laboratory Press, Sambrook, J., E.F. Fritsch and T. Maniatis eds., 1989, and "Methods in Enzymology: Guide to Molecular Cloning Techniques", Academic Press, Berger, S.L. and A.R. Kimmel eds., 1987.

#### Nutritional Uses

Polynucleotides and proteins of the present invention can also be used as nutritional sources or supplements. Such uses include without limitation use as a protein or amino acid supplement, use as a carbon source, use as a nitrogen source and use as a source of carbohydrate. In such cases the protein or polynucleotide of the invention can be added to the feed of a particular organism or can be administered as a separate solid or liquid preparation, such as in the form of powder, pills, solutions,

suspensions or capsules. In the case of microorganisms, the protein or polynucleotide of the invention can be added to the medium in or on which the microorganism is cultured.

#### Cytokine and Cell Proliferation/Differentiation Activity

A protein of the present invention may exhibit cytokine, cell proliferation (either inducing or inhibiting) or cell differentiation (either inducing or inhibiting) activity or may induce production of other cytokines in certain cell populations. Many protein factors discovered to date, including all known cytokines, have exhibited activity in one or more factor dependent cell proliferation assays, and hence the assays serve as a convenient confirmation of cytokine activity. The activity of a protein of the present invention is evidenced by any one of a number of routine factor dependent cell proliferation assays for cell lines including, without limitation, 32D, DA2, DA1G, T10, B9, B9/11, BaF3, MC9/G, M+ (preB M+), 2E8, RB5, DA1, 123, T1165, HT2, CTLL2, TF-1, Mo7e and CMK.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for T-cell or thymocyte proliferation include without limitation those described in: *Current Protocols in Immunology*, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., *J. Immunol.* 137:3494-3500, 1986; Bertagnolli et al., *J. Immunol.* 145:1706-1712, 1990; Bertagnolli et al., *Cellular Immunology* 133:327-341, 1991; Bertagnolli, et al., *J. Immunol.* 149:3778-3783, 1992; Bowman et al., *J. Immunol.* 152: 1756-1761, 1994.

Assays for cytokine production and/or proliferation of spleen cells, lymph node cells or thymocytes include, without limitation, those described in: Polyclonal T cell stimulation, Kruisbeek, A.M. and Shevach, E.M. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.12.1-3.12.14, John Wiley and Sons, Toronto. 1994; and Measurement of mouse and human Interferon  $\gamma$ , Schreiber, R.D. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.8.1-6.8.8, John Wiley and Sons, Toronto. 1994.

Assays for proliferation and differentiation of hematopoietic and lymphopoietic cells include, without limitation, those described in: Measurement of Human and Murine Interleukin 2 and Interleukin 4, Bottomly, K., Davis, L.S. and Lipsky, P.E. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.3.1-6.3.12, John Wiley and Sons, Toronto. 1991; deVries et al., *J. Exp. Med.* 173:1205-1211, 1991; Moreau

et al., Nature 336:690-692, 1988; Greenberger et al., Proc. Natl. Acad. Sci. U.S.A. 80:2931-2938, 1983; Measurement of mouse and human interleukin 6 - Nordan, R. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.6.1-6.6.5, John Wiley and Sons, Toronto. 1991; Smith et al., Proc. Natl. Acad. Sci. U.S.A. 83:1857-1861, 1986; Measurement of human Interleukin 11 - Bennett, F., Giannotti, J., Clark, S.C. and Turner, K. J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.15.1 John Wiley and Sons, Toronto. 1991; Measurement of mouse and human Interleukin 9 - Ciarletta, A., Giannotti, J., Clark, S.C. and Turner, K.J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.13.1, John Wiley and Sons, Toronto. 1991.

Assays for T-cell clone responses to antigens (which will identify, among others, proteins that affect APC-T cell interactions as well as direct T-cell effects by measuring proliferation and cytokine production) include, without limitation, those described in: *Current Protocols in Immunology*, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function; Chapter 6, Cytokines and their cellular receptors; Chapter 7, Immunologic studies in Humans); Weinberger et al., Proc. Natl. Acad. Sci. USA 77:6091-6095, 1980; Weinberger et al., Eur. J. Immun. 11:405-411, 1981; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988.

#### Immune Stimulating or Suppressing Activity

A protein of the present invention may also exhibit immune stimulating or immune suppressing activity, including without limitation the activities for which assays are described herein. A protein may be useful in the treatment of various immune deficiencies and disorders (including severe combined immunodeficiency (SCID)), e.g., in regulating (up or down) growth and proliferation of T and/or B lymphocytes, as well as effecting the cytolytic activity of NK cells and other cell populations. These immune deficiencies may be genetic or be caused by viral (e.g., HIV) as well as bacterial or fungal infections, or may result from autoimmune disorders. More specifically, infectious diseases caused by viral, bacterial, fungal or other infection may be treatable using a protein of the present invention, including infections by HIV, hepatitis viruses, herpesviruses, mycobacteria, *Leishmania* spp., *malaria* spp. and various fungal infections such as candidiasis. Of course, in this regard, a protein of the present invention may also be useful where a boost to the immune system generally may be desirable, i.e., in the treatment of cancer.

Autoimmune disorders which may be treated using a protein of the present invention include, for example, connective tissue disease, multiple sclerosis, systemic lupus erythematosus, rheumatoid arthritis, autoimmune pulmonary inflammation, Guillain-Barre syndrome, autoimmune thyroiditis, insulin dependent diabetes mellitus, myasthenia gravis, graft-versus-host disease and autoimmune inflammatory eye disease. Such a protein of the present invention may also be useful in the treatment of allergic reactions and conditions, such as asthma (particularly allergic asthma) or other respiratory problems. Other conditions, in which immune suppression is desired (including, for example, organ transplantation), may also be treatable using a protein of the present invention.

Using the proteins of the invention it may also be possible to immune responses, in a number of ways. Down regulation may be in the form of inhibiting or blocking an immune response already in progress or may involve preventing the induction of an immune response. The functions of activated T cells may be inhibited by suppressing T cell responses or by inducing specific tolerance in T cells, or both. Immunosuppression of T cell responses is generally an active, non-antigen-specific, process which requires continuous exposure of the T cells to the suppressive agent. Tolerance, which involves inducing non-responsiveness or anergy in T cells, is distinguishable from immunosuppression in that it is generally antigen-specific and persists after exposure to the tolerizing agent has ceased. Operationally, tolerance can be demonstrated by the lack of a T cell response upon reexposure to specific antigen in the absence of the tolerizing agent.

Down regulating or preventing one or more antigen functions (including without limitation B lymphocyte antigen functions (such as, for example, B7)), *e.g.*, preventing high level lymphokine synthesis by activated T cells, will be useful in situations of tissue, skin and organ transplantation and in graft-versus-host disease (GVHD). For example, blockage of T cell function should result in reduced tissue destruction in tissue transplantation. Typically, in tissue transplants, rejection of the transplant is initiated through its recognition as foreign by T cells, followed by an immune reaction that destroys the transplant. The administration of a molecule which inhibits or blocks interaction of a B7 lymphocyte antigen with its natural ligand(s) on immune cells (such as a soluble, monomeric form of a peptide having B7-2 activity alone or in conjunction with a monomeric form of a peptide having an activity of another B lymphocyte antigen (*e.g.*, B7-1, B7-3) or blocking antibody), prior to transplantation can lead to the binding of the molecule to the natural ligand(s) on the immune cells without transmitting the corresponding costimulatory signal. Blocking B lymphocyte antigen function in this manner prevents cytokine synthesis by immune

cells, such as T cells, and thus acts as an immunosuppressant. Moreover, the lack of costimulation may also be sufficient to anergize the T cells, thereby inducing tolerance in a subject. Induction of long-term tolerance by B lymphocyte antigen-blocking reagents may avoid the necessity of repeated administration of these blocking reagents. To achieve sufficient immunosuppression or tolerance in a subject, it may also be necessary to block the function of a combination of B lymphocyte antigens.

The efficacy of particular blocking reagents in preventing organ transplant rejection or GVHD can be assessed using animal models that are predictive of efficacy in humans. Examples of appropriate systems which can be used include allogeneic cardiac grafts in rats and xenogeneic pancreatic islet cell grafts in mice, both of which have been used to examine the immunosuppressive effects of CTLA4Ig fusion proteins *in vivo* as described in Lenschow *et al.*, *Science* 257:789-792 (1992) and Turka *et al.*, *Proc. Natl. Acad. Sci USA*, 89:11102-11105 (1992). In addition, murine models of GVHD (see Paul ed., *Fundamental Immunology*, Raven Press, New York, 1989, pp. 846-847) can be used to determine the effect of blocking B lymphocyte antigen function *in vivo* on the development of that disease.

Blocking antigen function may also be therapeutically useful for treating autoimmune diseases. Many autoimmune disorders are the result of inappropriate activation of T cells that are reactive against self tissue and which promote the production of cytokines and autoantibodies involved in the pathology of the diseases. Preventing the activation of autoreactive T cells may reduce or eliminate disease symptoms. Administration of reagents which block costimulation of T cells by disrupting receptor:ligand interactions of B lymphocyte antigens can be used to inhibit T cell activation and prevent production of autoantibodies or T cell-derived cytokines which may be involved in the disease process. Additionally, blocking reagents may induce antigen-specific tolerance of autoreactive T cells which could lead to long-term relief from the disease. The efficacy of blocking reagents in preventing or alleviating autoimmune disorders can be determined using a number of well-characterized animal models of human autoimmune diseases. Examples include murine experimental autoimmune encephalitis, systemic lupus erythematosus in MRL/*lpr/lpr* mice or NZB hybrid mice, murine autoimmune collagen arthritis, diabetes mellitus in NOD mice and BB rats, and murine experimental myasthenia gravis (see Paul ed., *Fundamental Immunology*, Raven Press, New York, 1989, pp. 840-856).

Upregulation of an antigen function (preferably a B lymphocyte antigen function), as a means of up regulating immune responses, may also be useful in therapy. Upregulation of immune responses may be in the form of enhancing an existing immune response or eliciting an initial immune response. For example,



enhancing an immune response through stimulating B lymphocyte antigen function may be useful in cases of viral infection. In addition, systemic viral diseases such as influenza, the common cold, and encephalitis might be alleviated by the administration of stimulatory forms of B lymphocyte antigens systemically.

Alternatively, anti-viral immune responses may be enhanced in an infected patient by removing T cells from the patient, costimulating the T cells *in vitro* with viral antigen-pulsed APCs either expressing a peptide of the present invention or together with a stimulatory form of a soluble peptide of the present invention and reintroducing the *in vitro* activated T cells into the patient. Another method of enhancing anti-viral immune responses would be to isolate infected cells from a patient, transfect them with a nucleic acid encoding a protein of the present invention as described herein such that the cells express all or a portion of the protein on their surface, and reintroduce the transfected cells into the patient. The infected cells would now be capable of delivering a costimulatory signal to, and thereby activate, T cells *in vivo*.

In another application, up regulation or enhancement of antigen function (preferably B lymphocyte antigen function) may be useful in the induction of tumor immunity. Tumor cells (*e.g.*, sarcoma, melanoma, lymphoma, leukemia, neuroblastoma, carcinoma) transfected with a nucleic acid encoding at least one peptide of the present invention can be administered to a subject to overcome tumor-specific tolerance in the subject. If desired, the tumor cell can be transfected to express a combination of peptides. For example, tumor cells obtained from a patient can be transfected *ex vivo* with an expression vector directing the expression of a peptide having B7-2-like activity alone, or in conjunction with a peptide having B7-1-like activity and/or B7-3-like activity. The transfected tumor cells are returned to the patient to result in expression of the peptides on the surface of the transfected cell. Alternatively, gene therapy techniques can be used to target a tumor cell for transfection *in vivo*.

The presence of the peptide of the present invention having the activity of a B lymphocyte antigen(s) on the surface of the tumor cell provides the necessary costimulation signal to T cells to induce a T cell mediated immune response against the transfected tumor cells. In addition, tumor cells which lack MHC class I or MHC class II molecules, or which fail to reexpress sufficient amounts of MHC class I or MHC class II molecules, can be transfected with nucleic acid encoding all or a portion of (*e.g.*, a cytoplasmic-domain truncated portion) of an MHC class I  $\alpha$  chain protein and  $\beta_2$  microglobulin protein or an MHC class II  $\alpha$  chain protein and an MHC class II  $\beta$  chain protein to thereby express MHC class I or MHC class II proteins on the cell surface. Expression of the appropriate class I or class II MHC in conjunction with a peptide

having the activity of a B lymphocyte antigen (*e.g.*, B7-1, B7-2, B7-3) induces a T cell mediated immune response against the transfected tumor cell. Optionally, a gene encoding an antisense construct which blocks expression of an MHC class II associated protein, such as the invariant chain, can also be cotransfected with a DNA encoding a peptide having the activity of a B lymphocyte antigen to promote presentation of tumor associated antigens and induce tumor specific immunity. Thus, the induction of a T cell mediated immune response in a human subject may be sufficient to overcome tumor-specific tolerance in the subject.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for thymocyte or splenocyte cytotoxicity include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J. Immunol. 137:3494-3500, 1986; Bowman et al., J. Virology 61:1992-1998; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnoli et al., Cellular Immunology 133:327-341, 1991; Brown et al., J. Immunol. 153:3079-3092, 1994.

Assays for T-cell-dependent immunoglobulin responses and isotype switching (which will identify, among others, proteins that modulate T-cell dependent antibody responses and that affect Th1/Th2 profiles) include, without limitation, those described in: Maliszewski, J. Immunol. 144:3028-3033, 1990; and Assays for B cell function: *In vitro* antibody production, Mond, J.J. and Brunswick, M. In *Current Protocols in Immunology*, J.E.e.a. Coligan eds. Vol 1 pp. 3.8.1-3.8.16, John Wiley and Sons, Toronto. 1994.

Mixed lymphocyte reaction (MLR) assays (which will identify, among others, proteins that generate predominantly Th1 and CTL responses) include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., J. Immunol.

137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnolli et al., J. Immunol. 149:3778-3783, 1992.

Dendritic cell-dependent assays (which will identify, among others, proteins expressed by dendritic cells that activate naive T-cells) include, without limitation, those described in: Guery et al., J. Immunol. 134:536-544, 1995; Inaba et al., Journal of Experimental Medicine 173:549-559, 1991; Macatonia et al., Journal of Immunology 154:5071-5079, 1995; Porgador et al., Journal of Experimental Medicine 182:255-260, 1995; Nair et al., Journal of Virology 67:4062-4069, 1993; Huang et al., Science 264:961-965, 1994; Macatonia et al., Journal of Experimental Medicine 169:1255-1264, 1989; Bhardwaj et al., Journal of Clinical Investigation 94:797-807, 1994; and Inaba et al., Journal of Experimental Medicine 172:631-640, 1990.

Assays for lymphocyte survival/apoptosis (which will identify, among others, proteins that prevent apoptosis after superantigen induction and proteins that regulate lymphocyte homeostasis) include, without limitation, those described in: Darzynkiewicz et al., Cytometry 13:795-808, 1992; Gorczyca et al., Leukemia 7:659-670, 1993; Gorczyca et al., Cancer Research 53:1945-1951, 1993; Itoh et al., Cell 66:233-243, 1991; Zacharchuk, Journal of Immunology 145:4037-4045, 1990; Zamai et al., Cytometry 14:891-897, 1993; Gorczyca et al., International Journal of Oncology 1:639-648, 1992.

Assays for proteins that influence early steps of T-cell commitment and development include, without limitation, those described in: Antica et al., Blood 84:111-117, 1994; Fine et al., Cellular Immunology 155:111-122, 1994; Galy et al., Blood 85:2770-2778, 1995; Toki et al., Proc. Nat. Acad. Sci. USA 88:7548-7551, 1991.

#### Hematopoiesis Regulating Activity

A protein of the present invention may be useful in regulation of hematopoiesis and, consequently, in the treatment of myeloid or lymphoid cell deficiencies. Even marginal biological activity in support of colony forming cells or of factor-dependent cell lines indicates involvement in regulating hematopoiesis, e.g. in supporting the growth and proliferation of erythroid progenitor cells alone or in combination with other cytokines, thereby indicating utility, for example, in treating various anemias or for use in conjunction with irradiation/chemotherapy to stimulate the production of erythroid precursors and/or erythroid cells; in supporting the growth and proliferation of myeloid cells such as granulocytes and monocytes/macrophages (i.e., traditional CSF activity) useful, for example, in conjunction with chemotherapy to prevent or treat consequent myelo-suppression; in supporting the growth and proliferation of megakaryocytes and consequently of platelets thereby allowing prevention or treatment of various platelet disorders such as thrombocytopenia, and generally for use

in place of or complimentary to platelet transfusions; and/or in supporting the growth and proliferation of hematopoietic stem cells which are capable of maturing to any and all of the above-mentioned hematopoietic cells and therefore find therapeutic utility in various stem cell disorders (such as those usually treated with transplantation, including, without limitation, aplastic anemia and paroxysmal nocturnal hemoglobinuria), as well as in repopulating the stem cell compartment post irradiation/chemotherapy, either *in-vivo* or *ex-vivo* (i.e., in conjunction with bone marrow transplantation or with peripheral progenitor cell transplantation (homologous or heterologous)) as normal cells or genetically manipulated for gene therapy.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for proliferation and differentiation of various hematopoietic lines are cited above.

Assays for embryonic stem cell differentiation (which will identify, among others, proteins that influence embryonic differentiation hematopoiesis) include, without limitation, those described in: Johansson et al. *Cellular Biology* 15:141-151, 1995; Keller et al., *Molecular and Cellular Biology* 13:473-486, 1993; McClanahan et al., *Blood* 81:2903-2915, 1993.

Assays for stem cell survival and differentiation (which will identify, among others, proteins that regulate lympho-hematopoiesis) include, without limitation, those described in: Methylcellulose colony forming assays, Freshney, M.G. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 265-268, Wiley-Liss, Inc., New York, NY. 1994; Hirayama et al., *Proc. Natl. Acad. Sci. USA* 89:5907-5911, 1992; Primitive hematopoietic colony forming cells with high proliferative potential, McNiece, I.K. and Briddell, R.A. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 23-39, Wiley-Liss, Inc., New York, NY. 1994; Neben et al., *Experimental Hematology* 22:353-359, 1994; Cobblestone area forming cell assay, Ploemacher, R.E. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 1-21, Wiley-Liss, Inc., New York, NY. 1994; Long term bone marrow cultures in the presence of stromal cells, Spooncer, E., Dexter, M. and Allen, T. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 163-179, Wiley-Liss, Inc., New York, NY. 1994; Long term culture initiating cell assay, Sutherland, H.J. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 139-162, Wiley-Liss, Inc., New York, NY. 1994.

#### Tissue Growth Activity

A protein of the present invention also may have utility in compositions used for bone, cartilage, tendon, ligament and/or nerve tissue growth or regeneration, as

well as for wound healing and tissue repair and replacement, and in the treatment of burns, incisions and ulcers.

A protein of the present invention, which induces cartilage and/or bone growth in circumstances where bone is not normally formed, has application in the healing of bone fractures and cartilage damage or defects in humans and other animals. Such a preparation employing a protein of the invention may have prophylactic use in closed as well as open fracture reduction and also in the improved fixation of artificial joints. *De novo* bone formation induced by an osteogenic agent contributes to the repair of congenital, trauma induced, or oncologic resection induced craniofacial defects, and also is useful in cosmetic plastic surgery.

A protein of this invention may also be used in the treatment of periodontal disease, and in other tooth repair processes. Such agents may provide an environment to attract bone-forming cells, stimulate growth of bone-forming cells or induce differentiation of progenitors of bone-forming cells. A protein of the invention may also be useful in the treatment of osteoporosis or osteoarthritis, such as through stimulation of bone and/or cartilage repair or by blocking inflammation or processes of tissue destruction (collagenase activity, osteoclast activity, etc.) mediated by inflammatory processes.

Another category of tissue regeneration activity that may be attributable to the protein of the present invention is tendon/ligament formation. A protein of the present invention, which induces tendon/ligament-like tissue or other tissue formation in circumstances where such tissue is not normally formed, has application in the healing of tendon or ligament tears, deformities and other tendon or ligament defects in humans and other animals. Such a preparation employing a tendon/ligament-like tissue inducing protein may have prophylactic use in preventing damage to tendon or ligament tissue, as well as use in the improved fixation of tendon or ligament to bone or other tissues, and in repairing defects to tendon or ligament tissue. *De novo* tendon/ligament-like tissue formation induced by a composition of the present invention contributes to the repair of congenital, trauma induced, or other tendon or ligament defects of other origin, and is also useful in cosmetic plastic surgery for attachment or repair of tendons or ligaments. The compositions of the present invention may provide an environment to attract tendon- or ligament-forming cells, stimulate growth of tendon- or ligament-forming cells, induce differentiation of progenitors of tendon- or ligament-forming cells, or induce growth of tendon/ligament cells or progenitors *ex vivo* for return *in vivo* to effect tissue repair. The compositions of the invention may also be useful in the treatment of tendinitis, carpal tunnel

syndrome and other tendon or ligament defects. The compositions may also include an appropriate matrix and/or sequestering agent as a carrier as is well known in the art.

The protein of the present invention may also be useful for proliferation of neural cells and for regeneration of nerve and brain tissue, *i.e.* for the treatment of central and peripheral nervous system diseases and neuropathies, as well as mechanical and traumatic disorders, which involve degeneration, death or trauma to neural cells or nerve tissue. More specifically, a protein may be used in the treatment of diseases of the peripheral nervous system, such as peripheral nerve injuries, peripheral neuropathy and localized neuropathies, and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager syndrome. Further conditions which may be treated in accordance with the present invention include mechanical and traumatic disorders, such as spinal cord disorders, head trauma and cerebrovascular diseases such as stroke. Peripheral neuropathies resulting from chemotherapy or other medical therapies may also be treatable using a protein of the invention.

Proteins of the invention may also be useful to promote better or faster closure of non-healing wounds, including without limitation pressure ulcers, ulcers associated with vascular insufficiency, surgical and traumatic wounds, and the like.

It is expected that a protein of the present invention may also exhibit activity for generation or regeneration of other tissues, such as organs (including, for example, pancreas, liver, intestine, kidney, skin, endothelium), muscle (smooth, skeletal or cardiac) and vascular (including vascular endothelium) tissue, or for promoting the growth of cells comprising such tissues. Part of the desired effects may be by inhibition or modulation of fibrotic scarring to allow normal tissue to regenerate. A protein of the invention may also exhibit angiogenic activity.

A protein of the present invention may also be useful for gut protection or regeneration and treatment of lung or liver fibrosis, reperfusion injury in various tissues, and conditions resulting from systemic cytokine damage.

A protein of the present invention may also be useful for promoting or inhibiting differentiation of tissues described above from precursor tissues or cells; or for inhibiting the growth of tissues described above.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for tissue generation activity include, without limitation, those described in: International Patent Publication No. WO95/16035 (bone, cartilage, tendon); International Patent Publication No. WO95/05846 (nerve, neuronal); International Patent Publication No. WO91/07491 (skin, endothelium).

Assays for wound healing activity include, without limitation, those described in: Winter, Epidermal Wound Healing, pps. 71-112 (Maibach, HI and Rovee, DT, eds.), Year Book Medical Publishers, Inc., Chicago, as modified by Eaglstein and Mertz, J. Invest. Dermatol 71:382-84 (1978).

#### Activin/Inhibin Activity

A protein of the present invention may also exhibit activin- or inhibin-related activities. Inhibins are characterized by their ability to inhibit the release of follicle stimulating hormone (FSH), while activins are characterized by their ability to stimulate the release of follicle stimulating hormone (FSH). Thus, a protein of the present invention, alone or in heterodimers with a member of the inhibin  $\alpha$  family, may be useful as a contraceptive based on the ability of inhibins to decrease fertility in female mammals and decrease spermatogenesis in male mammals. Administration of sufficient amounts of other inhibins can induce infertility in these mammals. Alternatively, the protein of the invention, as a homodimer or as a heterodimer with other protein subunits of the inhibin- $\beta$  group, may be useful as a fertility inducing therapeutic, based upon the ability of activin molecules in stimulating FSH release from cells of the anterior pituitary. See, for example, United States Patent 4,798,885. A protein of the invention may also be useful for advancement of the onset of fertility in sexually immature mammals, so as to increase the lifetime reproductive performance of domestic animals such as cows, sheep and pigs.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for activin/inhibin activity include, without limitation, those described in: Vale et al., Endocrinology 91:562-572, 1972; Ling et al., Nature 321:779- 782, 1986; Vale et al., Nature 321:776-779, 1986; Mason et al., Nature 318:659-663, 1985; Forage et al., Proc. Natl. Acad. Sci. USA 83:3091-3095, 1986.

#### Chemotactic/Chemokinetic Activity

A protein of the present invention may have chemotactic or chemokinetic activity (e.g., act as a chemokine) for mammalian cells, including, for example, monocytes, fibroblasts, neutrophils, T-cells, mast cells, eosinophils, epithelial and/or endothelial cells. Chemotactic and chemokinetic proteins can be used to mobilize or attract a desired cell population to a desired site of action. Chemotactic or chemokinetic proteins provide particular advantages in treatment of wounds and other trauma to tissues, as well as in treatment of localized infections. For example, attraction

of lymphocytes, monocytes or neutrophils to tumors or sites of infection may result in improved immune responses against the tumor or infecting agent.

A protein or peptide has chemotactic activity for a particular cell population if it can stimulate, directly or indirectly, the directed orientation or movement of such cell population. Preferably, the protein or peptide has the ability to directly stimulate directed movement of cells. Whether a particular protein has chemotactic activity for a population of cells can be readily determined by employing such protein or peptide in any known assay for cell chemotaxis.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for chemotactic activity (which will identify proteins that induce or prevent chemotaxis) consist of assays that measure the ability of a protein to induce the migration of cells across a membrane as well as the ability of a protein to induce the adhesion of one cell population to another cell population. Suitable assays for movement and adhesion include, without limitation, those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 6.12, Measurement of alpha and beta Chemokines 6.12.1-6.12.28; Taub et al. J. Clin. Invest. 95:1370-1376, 1995; Lind et al. APMIS 103:140-146, 1995; Muller et al. Eur. J. Immunol. 25: 1744-1748; Gruber et al. J. of Immunol. 152:5860-5867, 1994; Johnston et al. J. of Immunol. 153: 1762-1768, 1994.

#### Hemostatic and Thrombolytic Activity

A protein of the invention may also exhibit hemostatic or thrombolytic activity. As a result, such a protein is expected to be useful in treatment of various coagulation disorders (including hereditary disorders, such as hemophilias) or to enhance coagulation and other hemostatic events in treating wounds resulting from trauma, surgery or other causes. A protein of the invention may also be useful for dissolving or inhibiting formation of thromboses and for treatment and prevention of conditions resulting therefrom (such as, for example, infarction of cardiac and central nervous system vessels (e.g., stroke).

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assay for hemostatic and thrombolytic activity include, without limitation, those described in: Linet et al., J. Clin. Pharmacol. 26:131-140, 1986; Burdick et al., Thrombosis Res. 45:413-419, 1987; Humphrey et al., Fibrinolysis 5:71-79 (1991); Schaub, Prostaglandins 35:467-474, 1988.



### Receptor/Ligand Activity

A protein of the present invention may also demonstrate activity as receptors, receptor ligands or inhibitors or agonists of receptor/ligand interactions. Examples of such receptors and ligands include, without limitation, cytokine receptors and their ligands, receptor kinases and their ligands, receptor phosphatases and their ligands, receptors involved in cell-cell interactions and their ligands (including without limitation, cellular adhesion molecules (such as selectins, integrins and their ligands) and receptor/ligand pairs involved in antigen presentation, antigen recognition and development of cellular and humoral immune responses). Receptors and ligands are also useful for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. A protein of the present invention (including, without limitation, fragments of receptors and ligands) may themselves be useful as inhibitors of receptor/ligand interactions.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for receptor-ligand activity include without limitation those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 7.28, Measurement of Cellular Adhesion under static conditions 7.28.1-7.28.22), Takai et al., Proc. Natl. Acad. Sci. USA 84:6864-6868, 1987; Bierer et al., J. Exp. Med. 168:1145-1156, 1988; Rosenstein et al., J. Exp. Med. 169:149-160 1989; Stoltenborg et al., J. Immunol. Methods 175:59-68, 1994; Stitt et al., Cell 80:661-670, 1995.

### Anti-Inflammatory Activity

Proteins of the present invention may also exhibit anti-inflammatory activity. The anti-inflammatory activity may be achieved by providing a stimulus to cells involved in the inflammatory response, by inhibiting or promoting cell-cell interactions (such as, for example, cell adhesion), by inhibiting or promoting chemotaxis of cells involved in the inflammatory process, inhibiting or promoting cell extravasation, or by stimulating or suppressing production of other factors which more directly inhibit or promote an inflammatory response. Proteins exhibiting such activities can be used to treat inflammatory conditions including chronic or acute conditions), including without limitation inflammation associated with infection (such as septic shock, sepsis or systemic inflammatory response syndrome (SIRS)), ischemia-reperfusion injury, endotoxin lethality, arthritis, complement-mediated hyperacute rejection, nephritis,

cytokine or chemokine- induced lung injury, inflammatory bowel disease, Crohn's disease or resulting from over production of cytokines such as TNF or IL-1. Proteins of the invention may also be useful to treat anaphylaxis and hypersensitivity to an antigenic substance or material.

#### Tumor Inhibition Activity

In addition to the activities described above for immunological treatment or prevention of tumors, a protein of the invention may exhibit other anti-tumor activities. A protein may inhibit tumor growth directly or indirectly (such as, for example, via ADCC). A protein may exhibit its tumor inhibitory activity by acting on tumor tissue or tumor precursor tissue, by inhibiting formation of tissues necessary to support tumor growth (such as, for example, by inhibiting angiogenesis), by causing production of other factors, agents or cell types which inhibit tumor growth, or by suppressing, eliminating or inhibiting factors, agents or cell types which promote tumor growth.

#### Other Activities

A protein of the invention may also exhibit one or more of the following additional activities or effects: inhibiting the growth, infection or function of, or killing, infectious agents, including, without limitation, bacteria, viruses, fungi and other parasites; effecting (suppressing or enhancing) bodily characteristics, including, without limitation, height, weight, hair color, eye color, skin, fat to lean ratio or other tissue pigmentation, or organ or body part size or shape (such as, for example, breast augmentation or diminution, change in bone form or shape); effecting biorhythms or circadian cycles or rhythms; effecting the fertility of male or female subjects; effecting the metabolism, catabolism, anabolism, processing, utilization, storage or elimination of dietary fat, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional factors or component(s); effecting behavioral characteristics, including, without limitation, appetite, libido, stress, cognition (including cognitive disorders), depression (including depressive disorders) and violent behaviors; providing analgesic effects or other pain reducing effects; promoting differentiation and growth of embryonic stem cells in lineages other than hematopoietic lineages; hormonal or endocrine activity; in the case of enzymes, correcting deficiencies of the enzyme and treating deficiency-related diseases; treatment of hyperproliferative disorders (such as, for example, psoriasis); immunoglobulin-like activity (such as, for example, the ability to bind antigens or complement); and the ability to act as an antigen in a vaccine

composition to raise an immune response against such protein or another material or entity which is cross-reactive with such protein.

#### ADMINISTRATION AND DOSING

A protein of the present invention (from whatever source derived, including without limitation from recombinant and non-recombinant sources) may be used in a pharmaceutical composition when combined with a pharmaceutically acceptable carrier. Such a composition may also contain (in addition to protein and a carrier) diluents, fillers, salts, buffers, stabilizers, solubilizers, and other materials well known in the art. The term "pharmaceutically acceptable" means a non-toxic material that does not interfere with the effectiveness of the biological activity of the active ingredient(s). The characteristics of the carrier will depend on the route of administration. The pharmaceutical composition of the invention may also contain cytokines, lymphokines, or other hematopoietic factors such as M-CSF, GM-CSF, TNF, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IFN, TNF0, TNF1, TNF2, G-CSF, Meg-CSF, thrombopoietin, stem cell factor, and erythropoietin. The pharmaceutical composition may further contain other agents which either enhance the activity of the protein or compliment its activity or use in treatment. Such additional factors and/or agents may be included in the pharmaceutical composition to produce a synergistic effect with protein of the invention, or to minimize side effects. Conversely, protein of the present invention may be included in formulations of the particular cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent to minimize side effects of the cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent.

A protein of the present invention may be active in multimers (e.g., heterodimers or homodimers) or complexes with itself or other proteins. As a result, pharmaceutical compositions of the invention may comprise a protein of the invention in such multimeric or complexed form.

The pharmaceutical composition of the invention may be in the form of a complex of the protein(s) of present invention along with protein or peptide antigens. The protein and/or peptide antigen will deliver a stimulatory signal to both B and T lymphocytes. B lymphocytes will respond to antigen through their surface immunoglobulin receptor. T lymphocytes will respond to antigen through the T cell receptor (TCR) following presentation of the antigen by MHC proteins. MHC and structurally related proteins including those encoded by class I and class II MHC genes

on host cells will serve to present the peptide antigen(s) to T lymphocytes. The antigen components could also be supplied as purified MHC-peptide complexes alone or with co-stimulatory molecules that can directly signal T cells. Alternatively antibodies able to bind surface immunoglobulin and other molecules on B cells as well as antibodies able to bind the TCR and other molecules on T cells can be combined with the pharmaceutical composition of the invention.

The pharmaceutical composition of the invention may be in the form of a liposome in which protein of the present invention is combined, in addition to other pharmaceutically acceptable carriers, with amphipathic agents such as lipids which exist in aggregated form as micelles, insoluble monolayers, liquid crystals, or lamellar layers in aqueous solution. Suitable lipids for liposomal formulation include, without limitation, monoglycerides, diglycerides, sulfatides, lysolecithin, phospholipids, saponin, bile acids, and the like. Preparation of such liposomal formulations is within the level of skill in the art, as disclosed, for example, in U.S. Patent No. 4,235,871; U.S. Patent No. 4,501,728; U.S. Patent No. 4,837,028; and U.S. Patent No. 4,737,323, all of which are incorporated herein by reference.

As used herein, the term "therapeutically effective amount" means the total amount of each active component of the pharmaceutical composition or method that is sufficient to show a meaningful patient benefit, i.e., treatment, healing, prevention or amelioration of the relevant medical condition, or an increase in rate of treatment, healing, prevention or amelioration of such conditions. When applied to an individual active ingredient, administered alone, the term refers to that ingredient alone. When applied to a combination, the term refers to combined amounts of the active ingredients that result in the therapeutic effect, whether administered in combination, serially or simultaneously.

In practicing the method of treatment or use of the present invention, a therapeutically effective amount of protein of the present invention is administered to a mammal having a condition to be treated. Protein of the present invention may be administered in accordance with the method of the invention either alone or in combination with other therapies such as treatments employing cytokines, lymphokines or other hematopoietic factors. When co-administered with one or more cytokines, lymphokines or other hematopoietic factors, protein of the present invention may be administered either simultaneously with the cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors, or sequentially. If administered sequentially, the attending physician will decide on the appropriate sequence of administering protein of the present invention in combination with

cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors.

Administration of protein of the present invention used in the pharmaceutical composition or to practice the method of the present invention can be carried out in a variety of conventional ways, such as oral ingestion, inhalation, topical application or cutaneous, subcutaneous, intraperitoneal, parenteral or intravenous injection. Intravenous administration to the patient is preferred.

When a therapeutically effective amount of protein of the present invention is administered orally, protein of the present invention will be in the form of a tablet, capsule, powder, solution or elixir. When administered in tablet form, the pharmaceutical composition of the invention may additionally contain a solid carrier such as a gelatin or an adjuvant. The tablet, capsule, and powder contain from about 5 to 95% protein of the present invention, and preferably from about 25 to 90% protein of the present invention. When administered in liquid form, a liquid carrier such as water, petroleum, oils of animal or plant origin such as peanut oil, mineral oil, soybean oil, or sesame oil, or synthetic oils may be added. The liquid form of the pharmaceutical composition may further contain physiological saline solution, dextrose or other saccharide solution, or glycols such as ethylene glycol, propylene glycol or polyethylene glycol. When administered in liquid form, the pharmaceutical composition contains from about 0.5 to 90% by weight of protein of the present invention, and preferably from about 1 to 50% protein of the present invention.

When a therapeutically effective amount of protein of the present invention is administered by intravenous, cutaneous or subcutaneous injection, protein of the present invention will be in the form of a pyrogen-free, parenterally acceptable aqueous solution. The preparation of such parenterally acceptable protein solutions, having due regard to pH, isotonicity, stability, and the like, is within the skill in the art. A preferred pharmaceutical composition for intravenous, cutaneous, or subcutaneous injection should contain, in addition to protein of the present invention, an isotonic vehicle such as Sodium Chloride Injection, Ringer's Injection, Dextrose Injection, Dextrose and Sodium Chloride Injection, Lactated Ringer's Injection, or other vehicle as known in the art. The pharmaceutical composition of the present invention may also contain stabilizers, preservatives, buffers, antioxidants, or other additives known to those of skill in the art.

The amount of protein of the present invention in the pharmaceutical composition of the present invention will depend upon the nature and severity of the condition being treated, and on the nature of prior treatments which the patient has undergone. Ultimately, the attending physician will decide the amount of protein of

the present invention with which to treat each individual patient. Initially, the attending physician will administer low doses of protein of the present invention and observe the patient's response. Larger doses of protein of the present invention may be administered until the optimal therapeutic effect is obtained for the patient, and at that point the dosage is not increased further. It is contemplated that the various pharmaceutical compositions used to practice the method of the present invention should contain about 0.01  $\mu$ g to about 100 mg (preferably about 0.1mg to about 10 mg, more preferably about 0.1  $\mu$ g to about 1 mg) of protein of the present invention per kg body weight.

The duration of intravenous therapy using the pharmaceutical composition of the present invention will vary, depending on the severity of the disease being treated and the condition and potential idiosyncratic response of each individual patient. It is contemplated that the duration of each application of the protein of the present invention will be in the range of 12 to 24 hours of continuous intravenous administration. Ultimately the attending physician will decide on the appropriate duration of intravenous therapy using the pharmaceutical composition of the present invention.

Protein of the invention may also be used to immunize animals to obtain polyclonal and monoclonal antibodies which specifically react with the protein. Such antibodies may be obtained using either the entire protein or fragments thereof as an immunogen. The peptide immunogens additionally may contain a cysteine residue at the carboxyl terminus, and are conjugated to a hapten such as keyhole limpet hemocyanin (KLH). Methods for synthesizing such peptides are known in the art, for example, as in R.P. Merrifield, J. Amer.Chem.Soc. 85, 2149-2154 (1963); J.L. Krstenansky, *et al.*, FEBS Lett. 211, 10 (1987). Monoclonal antibodies binding to the protein of the invention may be useful diagnostic agents for the immunodetection of the protein. Neutralizing monoclonal antibodies binding to the protein may also be useful therapeutics for both conditions associated with the protein and also in the treatment of some forms of cancer where abnormal expression of the protein is involved. In the case of cancerous cells or leukemic cells, neutralizing monoclonal antibodies against the protein may be useful in detecting and preventing the metastatic spread of the cancerous cells, which may be mediated by the protein.

For compositions of the present invention which are useful for bone, cartilage, tendon or ligament regeneration, the therapeutic method includes administering the composition topically, systematically, or locally as an implant or device. When administered, the therapeutic composition for use in this invention is, of course, in a pyrogen-free, physiologically acceptable form. Further, the composition may desirably

be encapsulated or injected in a viscous form for delivery to the site of bone, cartilage or tissue damage. Topical administration may be suitable for wound healing and tissue repair. Therapeutically useful agents other than a protein of the invention which may also optionally be included in the composition as described above, may alternatively or additionally, be administered simultaneously or sequentially with the composition in the methods of the invention. Preferably for bone and/or cartilage formation, the composition would include a matrix capable of delivering the protein-containing composition to the site of bone and/or cartilage damage, providing a structure for the developing bone and cartilage and optimally capable of being resorbed into the body. Such matrices may be formed of materials presently in use for other implanted medical applications.

The choice of matrix material is based on biocompatibility, biodegradability, mechanical properties, cosmetic appearance and interface properties. The particular application of the compositions will define the appropriate formulation. Potential matrices for the compositions may be biodegradable and chemically defined calcium sulfate, tricalciumphosphate, hydroxyapatite, polylactic acid, polyglycolic acid and polyanhydrides. Other potential materials are biodegradable and biologically well-defined, such as bone or dermal collagen. Further matrices are comprised of pure proteins or extracellular matrix components. Other potential matrices are nonbiodegradable and chemically defined, such as sintered hydroxapatite, bioglass, aluminates, or other ceramics. Matrices may be comprised of combinations of any of the above mentioned types of material, such as polylactic acid and hydroxyapatite or collagen and tricalciumphosphate. The bioceramics may be altered in composition, such as in calcium-aluminate-phosphate and processing to alter pore size, particle size, particle shape, and biodegradability.

Presently preferred is a 50:50 (mole weight) copolymer of lactic acid and glycolic acid in the form of porous particles having diameters ranging from 150 to 800 microns. In some applications, it will be useful to utilize a sequestering agent, such as carboxymethyl cellulose or autologous blood clot, to prevent the protein compositions from disassociating from the matrix.

A preferred family of sequestering agents is cellulosic materials such as alkylcelluloses (including hydroxyalkylcelluloses), including methylcellulose, ethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, hydroxypropylmethylcellulose, and carboxymethylcellulose, the most preferred being cationic salts of carboxymethylcellulose (CMC). Other preferred sequestering agents include hyaluronic acid, sodium alginate, poly(ethylene glycol), polyoxyethylene oxide, carboxyvinyl polymer and poly(vinyl alcohol). The amount of sequestering agent

useful herein is 0.5-20 wt%, preferably 1-10 wt% based on total formulation weight, which represents the amount necessary to prevent desorption of the protein from the polymer matrix and to provide appropriate handling of the composition, yet not so much that the progenitor cells are prevented from infiltrating the matrix, thereby providing the protein the opportunity to assist the osteogenic activity of the progenitor cells.

In further compositions, proteins of the invention may be combined with other agents beneficial to the treatment of the bone and/or cartilage defect, wound, or tissue in question. These agents include various growth factors such as epidermal growth factor (EGF), platelet derived growth factor (PDGF), transforming growth factors (TGF- $\alpha$  and TGF- $\beta$ ), and insulin-like growth factor (IGF).

The therapeutic compositions are also presently valuable for veterinary applications. Particularly domestic animals and thoroughbred horses, in addition to humans, are desired patients for such treatment with proteins of the present invention.

The dosage regimen of a protein-containing pharmaceutical composition to be used in tissue regeneration will be determined by the attending physician considering various factors which modify the action of the proteins, e.g., amount of tissue weight desired to be formed, the site of damage, the condition of the damaged tissue, the size of a wound, type of damaged tissue (e.g., bone), the patient's age, sex, and diet, the severity of any infection, time of administration and other clinical factors. The dosage may vary with the type of matrix used in the reconstitution and with inclusion of other proteins in the pharmaceutical composition. For example, the addition of other known growth factors, such as IGF I (insulin like growth factor I), to the final composition, may also effect the dosage. Progress can be monitored by periodic assessment of tissue/bone growth and/or repair, for example, X-rays, histomorphometric determinations and tetracycline labeling.

Polynucleotides of the present invention can also be used for gene therapy. Such polynucleotides can be introduced either *in vivo* or *ex vivo* into cells for expression in a mammalian subject. Polynucleotides of the invention may also be administered by other known methods for introduction of nucleic acid into a cell or organism (including, without limitation, in the form of viral vectors or naked DNA).

Cells may also be cultured *ex vivo* in the presence of proteins of the present invention in order to proliferate or to produce a desired effect on or activity in such cells. Treated cells can then be introduced *in vivo* for therapeutic purposes.

Patent and literature references cited herein are incorporated by reference as if fully set forth.



What is claimed is:

1. An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ

ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ ID NO:307, SEQ ID NO:308, SEQ ID NO:309, SEQ ID NO:310, SEQ ID NO:311, SEQ ID NO:312, SEQ ID NO:313, SEQ ID NO:314, SEQ ID NO:315, SEQ ID NO:316, SEQ ID NO:317, SEQ ID NO:318, SEQ ID NO:319, SEQ ID NO:320, SEQ ID NO:321, SEQ ID NO:322, SEQ ID NO:323, SEQ ID NO:324, SEQ ID NO:325, SEQ ID NO:326, SEQ ID NO:327, SEQ ID NO:328, SEQ ID NO:329, SEQ ID NO:330, SEQ ID NO:331, SEQ ID NO:332, SEQ ID NO:333, SEQ ID NO:334,

SEQ ID NO:335, SEQ ID NO:336, SEQ ID NO:337, SEQ ID NO:338, SEQ ID NO:339, SEQ ID NO:340, SEQ ID NO:341, SEQ ID NO:342, SEQ ID NO:343, SEQ ID NO:344, SEQ ID NO:345, SEQ ID NO:346, SEQ ID NO:347, SEQ ID NO:348, SEQ ID NO:349, SEQ ID NO:350, SEQ ID NO:351, SEQ ID NO:352, SEQ ID NO:353, SEQ ID NO:354, SEQ ID NO:355, SEQ ID NO:356, SEQ ID NO:357, SEQ ID NO:358, SEQ ID NO:359, SEQ ID NO:360, SEQ ID NO:361, SEQ ID NO:362, SEQ ID NO:363, SEQ ID NO:364, SEQ ID NO:365, SEQ ID NO:366, SEQ ID NO:367, SEQ ID NO:368, SEQ ID NO:369, SEQ ID NO:370, SEQ ID NO:371, SEQ ID NO:372, SEQ ID NO:373, SEQ ID NO:374, SEQ ID NO:375, SEQ ID NO:376, SEQ ID NO:377, SEQ ID NO:378, SEQ ID NO:379, SEQ ID NO:380, SEQ ID NO:381, SEQ ID NO:382, SEQ ID NO:383, SEQ ID NO:384, SEQ ID NO:385, SEQ ID NO:386, SEQ ID NO:387, SEQ ID NO:388, SEQ ID NO:389, SEQ ID NO:390, SEQ ID NO:391, SEQ ID NO:392, SEQ ID NO:393, SEQ ID NO:394, SEQ ID NO:395, SEQ ID NO:396, SEQ ID NO:397, SEQ ID NO:398, SEQ ID NO:399, SEQ ID NO:400, SEQ ID NO:401, SEQ ID NO:402, SEQ ID NO:403, SEQ ID NO:404, SEQ ID NO:405, SEQ ID NO:406, SEQ ID NO:407, SEQ ID NO:408, SEQ ID NO:409, SEQ ID NO:410, SEQ ID NO:411, SEQ ID NO:412, SEQ ID NO:413, SEQ ID NO:414, SEQ ID NO:415, SEQ ID NO:416, SEQ ID NO:417, SEQ ID NO:418, SEQ ID NO:419, SEQ ID NO:420, SEQ ID NO:421, SEQ ID NO:422, SEQ ID NO:423, SEQ ID NO:424, SEQ ID NO:425, SEQ ID NO:426, SEQ ID NO:427, SEQ ID NO:428, SEQ ID NO:429, SEQ ID NO:430, SEQ ID NO:431, SEQ ID NO:432, SEQ ID NO:433, SEQ ID NO:434, SEQ ID NO:435, SEQ ID NO:436, SEQ ID NO:437, SEQ ID NO:438, SEQ ID NO:439, SEQ ID NO:440, SEQ ID NO:441, SEQ ID NO:442, SEQ ID NO:443, SEQ ID NO:444, SEQ ID NO:445, SEQ ID NO:446, SEQ ID NO:447, SEQ ID NO:448, SEQ ID NO:449, SEQ ID NO:450, SEQ ID NO:451, SEQ ID NO:452, SEQ ID NO:453, SEQ ID NO:454, SEQ ID NO:455, SEQ ID NO:456, SEQ ID NO:457, SEQ ID NO:458, SEQ ID NO:459, SEQ ID NO:460, SEQ ID NO:461, SEQ ID NO:462, SEQ ID NO:463, SEQ ID NO:464, SEQ ID NO:465, SEQ ID NO:466, SEQ ID NO:467, SEQ ID NO:468, SEQ ID NO:469, SEQ ID NO:470, SEQ ID NO:471, SEQ ID NO:472, SEQ ID NO:473, SEQ ID NO:474, SEQ ID NO:475, SEQ ID NO:476, SEQ ID NO:477, SEQ ID NO:478, SEQ ID NO:479, SEQ ID NO:480, SEQ ID NO:481, SEQ ID NO:482, SEQ ID NO:483, SEQ ID NO:484, SEQ ID NO:485, SEQ ID NO:486, SEQ ID NO:487, SEQ ID NO:488, SEQ ID NO:489, SEQ ID NO:490, SEQ ID NO:491, SEQ ID NO:492, SEQ ID NO:493, SEQ ID NO:494, SEQ ID NO:495, SEQ ID NO:496, SEQ ID NO:497, SEQ ID NO:498, SEQ ID NO:499, SEQ ID NO:500, SEQ ID NO:501, SEQ ID NO:502, SEQ ID NO:503, SEQ ID NO:504, SEQ ID NO:505, SEQ ID NO:506, SEQ ID

NO:507, SEQ ID NO:508, SEQ ID NO:509, SEQ ID NO:510, SEQ ID NO:511, SEQ ID NO:512, SEQ ID NO:513, SEQ ID NO:514, SEQ ID NO:515, SEQ ID NO:516, SEQ ID NO:517, SEQ ID NO:518, SEQ ID NO:519, SEQ ID NO:520, SEQ ID NO:521, SEQ ID NO:522, SEQ ID NO:523, SEQ ID NO:524, SEQ ID NO:525, SEQ ID NO:526, SEQ ID NO:527, SEQ ID NO:528, SEQ ID NO:529, SEQ ID NO:530, SEQ ID NO:531, SEQ ID NO:532, SEQ ID NO:533, SEQ ID NO:534, SEQ ID NO:535, SEQ ID NO:536, SEQ ID NO:537, SEQ ID NO:538, SEQ ID NO:539, SEQ ID NO:540, SEQ ID NO:541, SEQ ID NO:542, SEQ ID NO:543, SEQ ID NO:544, SEQ ID NO:545, SEQ ID NO:546, SEQ ID NO:547, SEQ ID NO:548, SEQ ID NO:549, SEQ ID NO:550, SEQ ID NO:551, SEQ ID NO:552, SEQ ID NO:553, SEQ ID NO:554, SEQ ID NO:555, SEQ ID NO:556, SEQ ID NO:557, SEQ ID NO:558, SEQ ID NO:559, SEQ ID NO:560, SEQ ID NO:561, SEQ ID NO:562, SEQ ID NO:563, SEQ ID NO:564, SEQ ID NO:565, SEQ ID NO:566, SEQ ID NO:567, SEQ ID NO:568, SEQ ID NO:569, SEQ ID NO:570, SEQ ID NO:571, SEQ ID NO:572, SEQ ID NO:573, SEQ ID NO:574, SEQ ID NO:575, SEQ ID NO:576, SEQ ID NO:577, SEQ ID NO:578, SEQ ID NO:579, SEQ ID NO:580, SEQ ID NO:581, SEQ ID NO:582, SEQ ID NO:583, SEQ ID NO:584, SEQ ID NO:585, SEQ ID NO:586, SEQ ID NO:587, SEQ ID NO:588, SEQ ID NO:589, SEQ ID NO:590, SEQ ID NO:591, SEQ ID NO:592, SEQ ID NO:593, SEQ ID NO:594, SEQ ID NO:595, SEQ ID NO:596, SEQ ID NO:597, SEQ ID NO:598, SEQ ID NO:599, SEQ ID NO:600, SEQ ID NO:601, SEQ ID NO:602, SEQ ID NO:603, SEQ ID NO:604, SEQ ID NO:605, SEQ ID NO:606, SEQ ID NO:607, SEQ ID NO:608, SEQ ID NO:609, SEQ ID NO:610, SEQ ID NO:611, SEQ ID NO:612, SEQ ID NO:613, SEQ ID NO:614, SEQ ID NO:615, SEQ ID NO:616, SEQ ID NO:617, SEQ ID NO:618, SEQ ID NO:619, SEQ ID NO:620, SEQ ID NO:621, SEQ ID NO:622, SEQ ID NO:623, SEQ ID NO:624, SEQ ID NO:625;

or a complement of said sequence.

2. An isolated polynucleotide consisting of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID

NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID

NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ ID NO:307, SEQ ID NO:308, SEQ ID NO:309, SEQ ID NO:310, SEQ ID NO:311, SEQ ID NO:312, SEQ ID NO:313, SEQ ID NO:314, SEQ ID NO:315, SEQ ID NO:316, SEQ ID NO:317, SEQ ID NO:318, SEQ ID NO:319, SEQ ID NO:320, SEQ ID NO:321, SEQ ID NO:322, SEQ ID NO:323, SEQ ID NO:324, SEQ ID NO:325, SEQ ID NO:326, SEQ ID NO:327, SEQ ID NO:328, SEQ ID NO:329, SEQ ID NO:330, SEQ ID NO:331, SEQ ID NO:332, SEQ ID NO:333, SEQ ID NO:334, SEQ ID NO:335, SEQ ID NO:336, SEQ ID NO:337, SEQ ID NO:338, SEQ ID NO:339, SEQ ID NO:340, SEQ ID NO:341, SEQ ID NO:342, SEQ ID NO:343, SEQ ID NO:344, SEQ ID NO:345, SEQ ID NO:346, SEQ ID NO:347, SEQ ID NO:348, SEQ ID NO:349, SEQ ID NO:350, SEQ ID NO:351, SEQ ID NO:352, SEQ ID NO:353, SEQ ID NO:354, SEQ ID NO:355, SEQ ID NO:356, SEQ ID NO:357, SEQ ID NO:358, SEQ ID NO:359, SEQ ID NO:360, SEQ ID NO:361, SEQ ID NO:362, SEQ ID NO:363, SEQ ID NO:364, SEQ ID NO:365, SEQ ID NO:366, SEQ ID NO:367, SEQ ID NO:368, SEQ ID NO:369, SEQ ID NO:370, SEQ ID NO:371, SEQ ID NO:372, SEQ ID NO:373, SEQ ID NO:374, SEQ ID NO:375, SEQ ID NO:376, SEQ ID NO:377, SEQ ID NO:378, SEQ ID NO:379, SEQ ID NO:380, SEQ ID NO:381, SEQ ID NO:382, SEQ ID NO:383, SEQ ID NO:384, SEQ ID NO:385, SEQ

ID NO:386, SEQ ID NO:387, SEQ ID NO:388, SEQ ID NO:389, SEQ ID NO:390, SEQ ID NO:391, SEQ ID NO:392, SEQ ID NO:393, SEQ ID NO:394, SEQ ID NO:395, SEQ ID NO:396, SEQ ID NO:397, SEQ ID NO:398, SEQ ID NO:399, SEQ ID NO:400, SEQ ID NO:401, SEQ ID NO:402, SEQ ID NO:403, SEQ ID NO:404, SEQ ID NO:405, SEQ ID NO:406, SEQ ID NO:407, SEQ ID NO:408, SEQ ID NO:409, SEQ ID NO:410, SEQ ID NO:411, SEQ ID NO:412, SEQ ID NO:413, SEQ ID NO:414, SEQ ID NO:415, SEQ ID NO:416, SEQ ID NO:417, SEQ ID NO:418, SEQ ID NO:419, SEQ ID NO:420, SEQ ID NO:421, SEQ ID NO:422, SEQ ID NO:423, SEQ ID NO:424, SEQ ID NO:425, SEQ ID NO:426, SEQ ID NO:427, SEQ ID NO:428, SEQ ID NO:429, SEQ ID NO:430, SEQ ID NO:431, SEQ ID NO:432, SEQ ID NO:433, SEQ ID NO:434, SEQ ID NO:435, SEQ ID NO:436, SEQ ID NO:437, SEQ ID NO:438, SEQ ID NO:439, SEQ ID NO:440, SEQ ID NO:441, SEQ ID NO:442, SEQ ID NO:443, SEQ ID NO:444, SEQ ID NO:445, SEQ ID NO:446, SEQ ID NO:447, SEQ ID NO:448, SEQ ID NO:449, SEQ ID NO:450, SEQ ID NO:451, SEQ ID NO:452, SEQ ID NO:453, SEQ ID NO:454, SEQ ID NO:455, SEQ ID NO:456, SEQ ID NO:457, SEQ ID NO:458, SEQ ID NO:459, SEQ ID NO:460, SEQ ID NO:461, SEQ ID NO:462, SEQ ID NO:463, SEQ ID NO:464, SEQ ID NO:465, SEQ ID NO:466, SEQ ID NO:467, SEQ ID NO:468, SEQ ID NO:469, SEQ ID NO:470, SEQ ID NO:471, SEQ ID NO:472, SEQ ID NO:473, SEQ ID NO:474, SEQ ID NO:475, SEQ ID NO:476, SEQ ID NO:477, SEQ ID NO:478, SEQ ID NO:479, SEQ ID NO:480, SEQ ID NO:481, SEQ ID NO:482, SEQ ID NO:483, SEQ ID NO:484, SEQ ID NO:485, SEQ ID NO:486, SEQ ID NO:487, SEQ ID NO:488, SEQ ID NO:489, SEQ ID NO:490, SEQ ID NO:491, SEQ ID NO:492, SEQ ID NO:493, SEQ ID NO:494, SEQ ID NO:495, SEQ ID NO:496, SEQ ID NO:497, SEQ ID NO:498, SEQ ID NO:499, SEQ ID NO:500, SEQ ID NO:501, SEQ ID NO:502, SEQ ID NO:503, SEQ ID NO:504, SEQ ID NO:505, SEQ ID NO:506, SEQ ID NO:507, SEQ ID NO:508, SEQ ID NO:509, SEQ ID NO:510, SEQ ID NO:511, SEQ ID NO:512, SEQ ID NO:513, SEQ ID NO:514, SEQ ID NO:515, SEQ ID NO:516, SEQ ID NO:517, SEQ ID NO:518, SEQ ID NO:519, SEQ ID NO:520, SEQ ID NO:521, SEQ ID NO:522, SEQ ID NO:523, SEQ ID NO:524, SEQ ID NO:525, SEQ ID NO:526, SEQ ID NO:527, SEQ ID NO:528, SEQ ID NO:529, SEQ ID NO:530, SEQ ID NO:531, SEQ ID NO:532, SEQ ID NO:533, SEQ ID NO:534, SEQ ID NO:535, SEQ ID NO:536, SEQ ID NO:537, SEQ ID NO:538, SEQ ID NO:539, SEQ ID NO:540, SEQ ID NO:541, SEQ ID NO:542, SEQ ID NO:543, SEQ ID NO:544, SEQ ID NO:545, SEQ ID NO:546, SEQ ID NO:547, SEQ ID NO:548, SEQ ID NO:549, SEQ ID NO:550, SEQ ID NO:551, SEQ ID NO:552, SEQ ID NO:553, SEQ ID NO:554, SEQ ID NO:555, SEQ ID NO:556, SEQ ID NO:557, SEQ ID NO:558,

SEQ ID NO:559, SEQ ID NO:560, SEQ ID NO:561, SEQ ID NO:562, SEQ ID NO:563, SEQ ID NO:564, SEQ ID NO:565, SEQ ID NO:566, SEQ ID NO:567, SEQ ID NO:568, SEQ ID NO:569, SEQ ID NO:570, SEQ ID NO:571, SEQ ID NO:572, SEQ ID NO:573, SEQ ID NO:574, SEQ ID NO:575, SEQ ID NO:576, SEQ ID NO:577, SEQ ID NO:578, SEQ ID NO:579, SEQ ID NO:580, SEQ ID NO:581, SEQ ID NO:582, SEQ ID NO:583, SEQ ID NO:584, SEQ ID NO:585, SEQ ID NO:586, SEQ ID NO:587, SEQ ID NO:588, SEQ ID NO:589, SEQ ID NO:590, SEQ ID NO:591, SEQ ID NO:592, SEQ ID NO:593, SEQ ID NO:594, SEQ ID NO:595, SEQ ID NO:596, SEQ ID NO:597, SEQ ID NO:598, SEQ ID NO:599, SEQ ID NO:600, SEQ ID NO:601, SEQ ID NO:602, SEQ ID NO:603, SEQ ID NO:604, SEQ ID NO:605, SEQ ID NO:606, SEQ ID NO:607, SEQ ID NO:608, SEQ ID NO:609, SEQ ID NO:610, SEQ ID NO:611, SEQ ID NO:612, SEQ ID NO:613, SEQ ID NO:614, SEQ ID NO:615, SEQ ID NO:616, SEQ ID NO:617, SEQ ID NO:618, SEQ ID NO:619, SEQ ID NO:620, SEQ ID NO:621, SEQ ID NO:622, SEQ ID NO:623, SEQ ID NO:624, SEQ ID NO:625;

or a complement of said sequence.

3. An isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID



NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264,

SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ ID NO:307, SEQ ID NO:308, SEQ ID NO:309, SEQ ID NO:310, SEQ ID NO:311, SEQ ID NO:312, SEQ ID NO:313, SEQ ID NO:314, SEQ ID NO:315, SEQ ID NO:316, SEQ ID NO:317, SEQ ID NO:318, SEQ ID NO:319, SEQ ID NO:320, SEQ ID NO:321, SEQ ID NO:322, SEQ ID NO:323, SEQ ID NO:324, SEQ ID NO:325, SEQ ID NO:326, SEQ ID NO:327, SEQ ID NO:328, SEQ ID NO:329, SEQ ID NO:330, SEQ ID NO:331, SEQ ID NO:332, SEQ ID NO:333, SEQ ID NO:334, SEQ ID NO:335, SEQ ID NO:336, SEQ ID NO:337, SEQ ID NO:338, SEQ ID NO:339, SEQ ID NO:340, SEQ ID NO:341, SEQ ID NO:342, SEQ ID NO:343, SEQ ID NO:344, SEQ ID NO:345, SEQ ID NO:346, SEQ ID NO:347, SEQ ID NO:348, SEQ ID NO:349, SEQ ID NO:350, SEQ ID NO:351, SEQ ID NO:352, SEQ ID NO:353, SEQ ID NO:354, SEQ ID NO:355, SEQ ID NO:356, SEQ ID NO:357, SEQ ID NO:358, SEQ ID NO:359, SEQ ID NO:360, SEQ ID NO:361, SEQ ID NO:362, SEQ ID NO:363, SEQ ID NO:364, SEQ ID NO:365, SEQ ID NO:366, SEQ ID NO:367, SEQ ID NO:368, SEQ ID NO:369, SEQ ID NO:370, SEQ ID NO:371, SEQ ID NO:372, SEQ ID NO:373, SEQ ID NO:374, SEQ ID NO:375, SEQ ID NO:376, SEQ ID NO:377, SEQ ID NO:378, SEQ ID NO:379, SEQ ID NO:380, SEQ ID NO:381, SEQ ID NO:382, SEQ ID NO:383, SEQ ID NO:384, SEQ ID NO:385, SEQ ID NO:386, SEQ ID NO:387, SEQ ID NO:388, SEQ ID NO:389, SEQ ID NO:390, SEQ ID NO:391, SEQ ID NO:392, SEQ ID NO:393, SEQ ID NO:394, SEQ ID NO:395, SEQ ID NO:396, SEQ ID NO:397, SEQ ID NO:398, SEQ ID NO:399, SEQ ID NO:400, SEQ ID NO:401, SEQ ID NO:402, SEQ ID NO:403, SEQ ID NO:404, SEQ ID NO:405, SEQ ID NO:406, SEQ ID NO:407, SEQ ID NO:408, SEQ ID NO:409, SEQ ID NO:410, SEQ ID NO:411, SEQ ID NO:412, SEQ ID NO:413, SEQ ID NO:414, SEQ ID NO:415, SEQ ID NO:416, SEQ ID NO:417, SEQ ID NO:418, SEQ ID NO:419, SEQ ID NO:420, SEQ ID NO:421, SEQ ID NO:422, SEQ ID NO:423, SEQ ID NO:424, SEQ ID NO:425, SEQ ID NO:426, SEQ ID NO:427, SEQ ID NO:428, SEQ ID NO:429, SEQ ID NO:430, SEQ ID NO:431, SEQ ID NO:432, SEQ ID NO:433, SEQ ID NO:434, SEQ ID NO:435, SEQ ID NO:436, SEQ ID

NO:437, SEQ ID NO:438, SEQ ID NO:439, SEQ ID NO:440, SEQ ID NO:441, SEQ ID NO:442, SEQ ID NO:443, SEQ ID NO:444, SEQ ID NO:445, SEQ ID NO:446, SEQ ID NO:447, SEQ ID NO:448, SEQ ID NO:449, SEQ ID NO:450, SEQ ID NO:451, SEQ ID NO:452, SEQ ID NO:453, SEQ ID NO:454, SEQ ID NO:455, SEQ ID NO:456, SEQ ID NO:457, SEQ ID NO:458, SEQ ID NO:459, SEQ ID NO:460, SEQ ID NO:461, SEQ ID NO:462, SEQ ID NO:463, SEQ ID NO:464, SEQ ID NO:465, SEQ ID NO:466, SEQ ID NO:467, SEQ ID NO:468, SEQ ID NO:469, SEQ ID NO:470, SEQ ID NO:471, SEQ ID NO:472, SEQ ID NO:473, SEQ ID NO:474, SEQ ID NO:475, SEQ ID NO:476, SEQ ID NO:477, SEQ ID NO:478, SEQ ID NO:479, SEQ ID NO:480, SEQ ID NO:481, SEQ ID NO:482, SEQ ID NO:483, SEQ ID NO:484, SEQ ID NO:485, SEQ ID NO:486, SEQ ID NO:487, SEQ ID NO:488, SEQ ID NO:489, SEQ ID NO:490, SEQ ID NO:491, SEQ ID NO:492, SEQ ID NO:493, SEQ ID NO:494, SEQ ID NO:495, SEQ ID NO:496, SEQ ID NO:497, SEQ ID NO:498, SEQ ID NO:499, SEQ ID NO:500, SEQ ID NO:501, SEQ ID NO:502, SEQ ID NO:503, SEQ ID NO:504, SEQ ID NO:505, SEQ ID NO:506, SEQ ID NO:507, SEQ ID NO:508, SEQ ID NO:509, SEQ ID NO:510, SEQ ID NO:511, SEQ ID NO:512, SEQ ID NO:513, SEQ ID NO:514, SEQ ID NO:515, SEQ ID NO:516, SEQ ID NO:517, SEQ ID NO:518, SEQ ID NO:519, SEQ ID NO:520, SEQ ID NO:521, SEQ ID NO:522, SEQ ID NO:523, SEQ ID NO:524, SEQ ID NO:525, SEQ ID NO:526, SEQ ID NO:527, SEQ ID NO:528, SEQ ID NO:529, SEQ ID NO:530, SEQ ID NO:531, SEQ ID NO:532, SEQ ID NO:533, SEQ ID NO:534, SEQ ID NO:535, SEQ ID NO:536, SEQ ID NO:537, SEQ ID NO:538, SEQ ID NO:539, SEQ ID NO:540, SEQ ID NO:541, SEQ ID NO:542, SEQ ID NO:543, SEQ ID NO:544, SEQ ID NO:545, SEQ ID NO:546, SEQ ID NO:547, SEQ ID NO:548, SEQ ID NO:549, SEQ ID NO:550, SEQ ID NO:551, SEQ ID NO:552, SEQ ID NO:553, SEQ ID NO:554, SEQ ID NO:555, SEQ ID NO:556, SEQ ID NO:557, SEQ ID NO:558, SEQ ID NO:559, SEQ ID NO:560, SEQ ID NO:561, SEQ ID NO:562, SEQ ID NO:563, SEQ ID NO:564, SEQ ID NO:565, SEQ ID NO:566, SEQ ID NO:567, SEQ ID NO:568, SEQ ID NO:569, SEQ ID NO:570, SEQ ID NO:571, SEQ ID NO:572, SEQ ID NO:573, SEQ ID NO:574, SEQ ID NO:575, SEQ ID NO:576, SEQ ID NO:577, SEQ ID NO:578, SEQ ID NO:579, SEQ ID NO:580, SEQ ID NO:581, SEQ ID NO:582, SEQ ID NO:583, SEQ ID NO:584, SEQ ID NO:585, SEQ ID NO:586, SEQ ID NO:587, SEQ ID NO:588, SEQ ID NO:589, SEQ ID NO:590, SEQ ID NO:591, SEQ ID NO:592, SEQ ID NO:593, SEQ ID NO:594, SEQ ID NO:595, SEQ ID NO:596, SEQ ID NO:597, SEQ ID NO:598, SEQ ID NO:599, SEQ ID NO:600, SEQ ID NO:601, SEQ ID NO:602, SEQ ID NO:603, SEQ ID NO:604, SEQ ID NO:605, SEQ ID NO:606, SEQ ID NO:607, SEQ ID NO:608, SEQ ID NO:609, SEQ

ID NO:610, SEQ ID NO:611, SEQ ID NO:612, SEQ ID NO:613, SEQ ID NO:614, SEQ ID NO:615, SEQ ID NO:616, SEQ ID NO:617, SEQ ID NO:618, SEQ ID NO:619, SEQ ID NO:620, SEQ ID NO:621, SEQ ID NO:622, SEQ ID NO:623, SEQ ID NO:624, SEQ ID NO:625;

or to a complement of said sequence.

4. The polynucleotide of any one of claims 1-3, wherein said polynucleotide is operably linked to at least one expression control sequence.

5. A vector comprising the polynucleotide of claim 4.

6. A host cell transformed with a vector comprising the polynucleotide of any one of claims 1-3.

7. A process for producing a protein encoded by the polynucleotide of claim 4, which process comprises:

- (a) growing a culture of a host cell in a suitable culture medium, wherein the host cell has been transformed with the polynucleotide of claim 4; and
- (b) purifying said protein from the culture.

8. A protein produced according to the process of claim 7.

9. An antibody that specifically binds to the protein of claim 8.

10. A method for detecting the protein of claim 8, comprising contacting a sample suspected of containing the protein with an antibody that specifically binds to the protein, under conditions such that the antibody binds the protein and the protein is detected.

11. A method for detecting the polynucleotide of any one of claims 1-3, comprising contacting a sample suspected of containing the polynucleotide with a polynucleotide reagent that hybridizes to the polynucleotide, under conditions such that the reagent binds the polynucleotide and the polynucleotide is detected.

12. The method of claim 10, wherein the sample is a biological sample.

13. The method of claim 12, where the biological sample is isolated from a human.
14. The method of claim 11, wherein the sample is a biological sample.
15. The method of claim 14, where the biological sample is isolated from a human.
16. A method of identifying a compound that modulates the activity of the protein of claim 8, comprising contacting a composition comprising the protein with a test compound and monitoring the effect of the test compound on the activity of the protein, such that a modulatory compound is identified.
17. A method of identifying a compound that modulates the expression of the polynucleotide of any one of claims 1-3, comprising contacting a cell that expresses the polynucleotide with a test compound and determining the effect of the test compound on the expression of the polynucleotide, such that a modulatory compound is identified.
18. A method of identifying a compound that modulates the production of the protein of claim 8, comprising contacting a cell that produces the protein with the test compound and determining the effect of the test compound on the production of the protein, such that a modulatory compound is identified.
19. A method of treating a subject having a disorder characterized by aberrant expression of the polynucleotide of any one of claims 1-3, comprising administering to said subject a therapeutically effective amount of a compound that modulates expression of the polypeptide, such that treatment is effected.
20. A method of treating a subject having a disorder characterized by aberrant production of the protein of claim 8, comprising administering to said subject a therapeutically effective amount of a compound that modulates production of the protein, such that treatment is effected.
21. A method of treating a subject having a disorder characterized by aberrant activity of the protein of claim 8, comprising administering to said subject a therapeutically effective amount of a compound that modulates activity of the protein, such that treatment is effected.

## SEQUENCE LISTING

<110> Wong, Gordon G.  
 Clark, Hilary  
 Fechtel, Kim  
 Agostino, Michael J.  
 Howes, Steven H.  
 Resnick, Richard J.  
 Gulukota, Kamalakar  
 Graham, James R.  
 Genetics Institute, Inc.

<120> POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS

<130> GIN 6402PC

<140>

<141>

<150> 60/195,604

<151> 2000-04-06

<160> 631

<170> PatentIn Ver. 2.0

<210> 1

<211> 1930

<212> DNA

<213> Homo sapiens

<400> 1  
 gataaagggtg aatgtggagc caaggactct ggaagtaagg tcagttgctg caggttttat 60  
 gtgaaaaaac aaaatcaaac acaaacagca aaatcaaac acaagtgtgt tagtggaat 120  
 gacctatctt aaatagaatg taaatgcaaa tatgcatgag atgcataatt tggtaagatg 180  
 ttttggtaat gctgcagag ttactgattt gttgttttta ttttatttta aatatagtat 240  
 atgcatttta tatatttatt tcagtcgtgtg ttcatgtcta actcatacat aatagtgcac 300  
 gaaacagcaa cactatgaaa tagagtaaat ggcctaata gaacattaat gaaacactta 360  
 agattaagtg attatagggg tgtgtgtttt cctgtgtgtg ttgatggca cagttgcagc 420  
 atctatagta tcaactgattg gcaagactat tcgtgtgcat catgtgtgct ctgtttgtat 480  
 tgaatggcaa agctttgttg tgagatgtag tctagtggat gagagtacac tgaggggatg 540  
 aattttggag accaagagat caaaaatggt acactgcaat tctaaacatg tccaaagcct 600  
 acttgagag tgagaatgta ctggaacctt caccagccaa catattgcag gataacttcc 660  
 tgaaggttta tcttagccat cttagtaact tgagggattg gaaatgtggt cagtcctcca 720  
 tttatgactc tactaagcca gtaacatggt caacatttaa aacttgcttc tacaatcaca 780  
 cgtatggttt attttagccc tgttcgtgtg cagctttacc agattattta taggatgaag 840  
 aaactgtctt gtaccttcaa tttttccac ggtaatggaa tataactatt tatcaattta 900  
 tcaactgcaac tgacatagcc agggaaatgt ttaagaaatg aataaataga agtttattcc 960  
 ctgcaggtag tcgattgagt ccacaaaat cttaagctaa attttatgtt gtttcatggt 1020  
 agctgttatg aaaatggacc atctaagaga aaatccattg tttctcaaat tcaaatgcat 1080  
 tctgtgtgac taggttggtc ccgtgataat gctatgtgac attgctgttc tcttctattc 1140  
 accagtttgc cttcctaata acctcttctc atatacattc tttaggaaa gaccagtgcc 1200  
 ctcaacttga gcaacgttgc tggagtattc tacatccttg tcgggggcct tggtttgcca 1260  
 atgctggttg ctttgattga gttctgttac aagtcaagg cagaggcga acgaatgaag 1320  
 gtggcaaaag atgcacagaa tattaaccca tcttcctcgc agaattcaca gaattttgca 1380  
 acttataagg aaggtttaca cgtatatggc atcgaaagtg ttaaaattta ggggatgacc 1440  
 ttgaatgatg ccatgaggaa caaggcaagg ctgtcaatta caggaagtac tggagaaaat 1500  
 ggacgtgtta tgactccaga atttcccaa gcagtgcacg ctgtccctta cgtgagtcct 1560  
 ggcattggaa tgaatgtcag tgtgactgat ctctcgtgat tgataagaac cttttgagt 1620  
 ccttacacaa tggttttctt gtgtgtttat tgtcaaagtg gtgagaggca tccagtatct 1680  
 tgaagacttt tctttcagcc aagaattctt aaatatgtgg agttcatctt gaattgtaag 1740  
 gaatgattaa ttaaaacaca acatcttttt ctactcgagt tacagacaaa gcgtggtgga 1800  
 catgcacagc taacatggaa gtactataat ttacctgaag tctttgtaca gacaacaaac 1860  
 ctgtttctgc agccactatt gttagtctct tgattcataa tgacttaagc acacttgaca 1920

tcaactgcat

1930

&lt;210&gt; 2

&lt;211&gt; 2106

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2

```

accttgtgtg attcatgcag ctgtactcaa ggtaaaggaa gaagaaagtc tcgaaaacat 60
ttcttcagtt aagaagatca taaagcagat aatatcccat tccagtaaag ttttgcactt 120
ccccaatcca gaagacaaga aattggaaga aatcattcac cagattacta atgtggaagc 180
tctcattgcc agagctcggg cactaaaagc caagtttggg actgagaaat gtgaacagga 240
ggaggaagaa gaagatcttg aaaggtttgt gagttgcctg ctggagcagc ctgaagtgtt 300
agtaccgggt gcaggaagag gacatgctgg caggatcatt cacaagctgt ttgtgaatgc 360
ccagaggggt gcagctatga ctccaccaga ggaggaattg aagagaatgg gctccccaga 420
ggaaagaagg cagaactccg tgtcagactt cccacccctt gctggccggg aattcatttt 480
gcgaccact gtgcccggcc ctgctcccta ctccaaagct ctgcctcagc ggatgtacag 540
tgttctcacc aaagaggagt ttagacttgc aggtgccttt tcatcagata ctctcttctt 600
ctgattcttc tagcattact cgttgggtggc ttccagagaca gtgctgcctc ctctgaggg 660
aggggaagta ccaggagaga cctgggaggt cctggagagg gcctgtcca gttgggtgat 720
caggaatcaa accagcatcg gaaagacttc ccagcaccaa gcttgagctg tgcgttttcg 780
tggagggggg agcgaggatg ggcttgagct gttgagagat ttctgcccta gagatggcct 840
ttgtatatgg gggggtgggt gggggacaca aacacatcag acactccgct ctccactgg 900
caggacgggt ttcacgcgat tctcttctgt gaccagcctc tagctagcgg ctgcattcgt 960
ggctctgtga aacacttctg ggtctatata tcagcagcaa gtgtgcaaaa taaaggacct 1020
gttaactcag atttctggat attttgggtg agcttctagt cccagaatct gtgtttttaa 1080
aatactacat gacattctgt ctattcaatc acctgggtgg catctttctt gactaattaa 1140
ctgttgatga gcattttgga tattctagga gaaagcctat aatttcacat agtttctctt 1200
tttcatgtaa ctgtacctaa atgtattact tctgataaaa ctatatatca aatgtcactg 1260
caaattagtt ttatatctgt catgtgagat ttgtcttact tatttttctt ttgggtgcca 1320
tggaagttat ggccctgaaa atcgtctccc tccccttctc ttgctgtaca gcatgcgttc 1380
tctttttgtg gttgctggct gggactgtga tttaatgaag tagagaatag cacttgcaaa 1440
aatacagctc tggtagctag agactgtcat gcagatagta taatttggtg tatgtgctaa 1500
tgcattgagt agaggattat tttaacacac tatttttgct ttgtatttta gttaaaataa 1560
tcgatgggga tgtgtagccc ccccggtgga ggatgacatc accacatttc tagtttcctg 1620
gagctcaaga tgtcttgtgt ctgtgtggct agatggcctc tgcttggtaa tcttattttt 1680
aggcctaaaa ttccactta aatccaaagt aaaaatgggt atactgaagc ataaaccttg 1740
cctgtgtaat tttaaaaaat taatagagct gtgcaaacc tgttattttt gtaaaaaaaa 1800
aaaaaaatac atatctatat ataatatgtg tgtgtgtgtg acatatgcac acgtctctgt 1860
gtatgtgaag taggggaggt cctgggggat gacctcccag cctttatgat gcttttctct 1920
atgctgctgg acttcattct tactgggtcca cgcagatgca ggcggcctga ggccagtgtc 1980
gtaccaagta gaagacggtt cctaaggaca gaggttgtct gttttctaac aaagaaaaat 2040
tctacaaagg agaggttggg cgttacaaag gcattgtgaa tctaataaaa ggaaagtgtc 2100
gctttc

```

&lt;210&gt; 3

&lt;211&gt; 2101

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3

```

tttgcgttt ctatgcctat ttaaagtctc ctaaagggtg aattgactag gaaggatgta 60
gttctacact gcactccacc ctgggcaaca agagcgaaaa ctgtctcaa aaaaaaaaat 120
ttttcatttg aggtattctt ccagtagaag gttagtaagt ttttaatgaa accattaata 180
ataacacttc ccagaaaata gatgacatca gtgccccttg ctactttctc agtccctact 240
attgctttga gggcccaggt actgaaactg gttgtcttga gttttgtgtc agcttttctt 300
ccagtccatt atccccctcc ctgtcttctg aagcagtcta ggttaaacta gccaggcagg 360
tagttgtgga ctgggtgattt tcaaaagccc cactttagag atcaggccac agctttttat 420
atcgcacagg acacatcagc ctgagctgct gcctcatgcc tgtttcccca ggaacctcac 480
tccttttggt gaaccttggg attttagaaa ttgtggcttt tccataactc atttactcca 540
acagttgaag ttacacacat tgctcccaaa ttggaaata gaccacagta ccttaccttt 600
cattcccat ctggccttta ccttcttctg ttccagtgggt gaaaacagtt gccatattca 660
aagtatagta gatttcaacc tcacacaaat gacaagtccc attttacaat cctaggaagg 720
cccaccaatt tcatttcacg cgccagggcg gctgcagttg gaggcgagg gcagccctct 780

```

```

gctcactgaa tgtcttgcac gtgctgactg ctgcccgcag tgctgaacat gccccaccgc 840
ccaggccccag cactgcttgt tgggtcagca tctagtgtctg ctgtcacatc tttgtctgca 900
cagccagtag gattgcctca gccagggggt ttatcagaag gtgtgcaagg cctttggggg 960
aactgagccc ctatagtggg cagtctcctt taccttccca cctccctgaa aagcacagaa 1020
gacagtgcct tggtttgtgt tttgaagcaa acaagtcagc tttctggctt tgccccaaaa 1080
ctgtgatgga acataataaa actggagata cggtttttta cactgcaaaa aggaaaaagc 1140
atcaagtttc tacttctggc tggaaaagcaa aaccaatctc agctgacaag gctgggcaaa 1200
ctaagttttc ctgagcccat tttcctttga gccctgacct agcctggcct tacctcatta 1260
aggtttgggt aaagcagtgg aaaggaggag gaggcagggg tggatggggg tgtggggagg 1320
ggatgagcac tctgcagccg attaatctgt tggtaggggc ccagcttctt gggagtgtctt 1380
attcagcccc ggagtggagg ctgtttacag cgagccctgg agatggcagc ttgtctccag 1440
ctggggaggg gtccagcccc taaattgaag accactttgg tagcagaact gtagggactg 1500
gtgagtcaac tcacagattc tgcagcagct gctccacca caataaagca aacgcccaca 1560
ggctagaccc cagattgcag gggctgccac ctacaagggt ggaccacagg ctgcctcacc 1620
gggattgtct ccactaaat agctggagtc acagattgag ataaatgcc ccttcaagg 1680
tgcatgaaa agcataatcc tatgtgatga atttatatgt gttatttttt aaaaaagcta 1740
ttttattact gcatgttccc gtcccgctct gtgaatgtga gtccccgcca ccacgtgagg 1800
tgcagtcgtt gcagcggctg gtgcaggagt gcagctggcg cgtgtgtgat agcatctcgt 1860
agggtgtgct gcacaagagt taaccagagt caatgccaaa cacatagtat gagaagtgt 1920
ctttttaaga aattaattta tttgagttca aatatttttg aaatataaaa attggttcta 1980
ttttttaaag ctataattct tgtagacatt ctgtggttaa aaatttgatt gtgcttatta 2040
aaaatggtca tctatgtttt gcacttcagc tacgtgaaaa taaaatttct ttgggaaggc 2100
g 2101

```

&lt;210&gt; 4

&lt;211&gt; 1861

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4

```

agccaccctc cggaagcaca gccgcgtgca ccagtcggag catcctgaga agtgctcgga 60
atgcagctac tcctgctcca gcaaggccgc cctgcgcac cagcagcgta tccactgcac 120
cgaccgccct ttcaagtga actactgcag cttcgacacc aaacagccca gcaacctgag 180
caagcacatg aagaagtcc atggggacat ggttaagact gaggctctag agaggaagga 240
caccggcagg cagagcagcc ggaggtggc caagctggat gccagaaga gtttccactg 300
cgatatatgc gatgcctcct tcctgcggga ggactcgctc cgcagccaca agagacagca 360
cagtgagtac agtgagagta agaactcgga cgtgaccgtt ctccagtttc agatcgaccc 420
cagcaagcag ccgcccacgc ccctcactgt gggacacctc caggtgcccc tccagcccag 480
ccaagtcccc cagttcagcg agggaagagt caaaatcacc gttgggcacc agbtgcccc 540
ggcgaacacc atcgtccagg ctgcgcgcgc tgcagtgaac atcgtcccgc ctgcttgggt 600
ggcccagaac ccagaggaa tcccaggga cagccggctg cagatcctgc gccaggtcag 660
tctgatcgcc cccctcagt cctcgcggtg tccgagcgag gggggcgcaa tgaccagcc 720
ggctgtcctg ctgagcacc acgagcagac ggaaggagcc actctgcacc agactctcat 780
ccccacggcc tcaggtggcc ccaggaagg ctctggcaat caaactttca ttaccagttc 840
gggtattact tgcactgact ttgaaggcct aaacgcctt attcaggagg ggacagcaga 900
agtgcagtg gtgagcgatg gaggccagaa catcgagtg gccaccacag cgccaccggt 960
cttctcctcc tcttcccagc aagaactacc caagcagacc tactccatca ttcaaggggc 1020
agcccatcca gctttgctct gtcccgcga ctccattcca gattagtgt taaaaaaca 1080
aaaggagtgg gggaaaaggaa ttgagaaaaa gaaatcttaa gtagaattct ctaaaagggt 1140
tgctottaat gttttctttg ttttgtttt tttttgagac ggagtctcgc tctgtttccc 1200
aggctggagt gcagtggcgc tatcttggct cactgcaacg tccgcctccc aggttcaagc 1260
gattctcatg cctcagccct ccgagtagct gggaccacag gtgtacgaca tcatgactgg 1320
ctaatttttg tatatttagt agagacgggg tttcatcatg ttgaactcct gacctcaagt 1380
gatctgcccc cctcagcctc ccaaagtgt gggattacag gtgtgagcca ccattgctgg 1440
ccgtgggttg ctcttaagt ttttaaggat ggttgtgaat cccctggcc ccataataaa 1500
ttgtaatttt atactgctta ctataatttt ttttaacactg taacaacttt gagaccacct 1560
ctgaatcgtc gcattataac tgtttagtaa tcttaaatgg gaccaagatg attccaatga 1620
ggggttgga ttaaatgcat taagtagtga attcatgtgt ttgtttccaa cttgattttc 1680
caactctaataa aggttttct gtccatctta ttacatttgt gtagtaaatg gtactcccc 1740
gcctctcttt tgccccattc tggaaatact cccagagttt ggggggtgtt atgttttata 1800
catgtaagtc tgttggcatg aaggaccatt tctacataa tatgacatgg atacttgacc 1860
c 1861

```

&lt;210&gt; 5



<211> 1506  
 <212> DNA  
 <213> Homo sapiens

<400> 5  
 gggtttgtgga agatgccatc ttaggagtct tctggaagc tggagcctgt tgcttagccg 60  
 tcaacataga ggctgaaaat gccagatgct tctcagcctc ctttagctgc aggggttagt 120  
 catgtgatct gggctgggcc catcagggtgc catggactga ggagcctgga ccaagccaga 180  
 gcccaacaca gaaccttttc tgggtggaagt ggccatggct actgcagcct tgtctagatt 240  
 ccagggcaac agcagcaggg tcatggttca gacccagcc atggttgtgg cacagctgcc 300  
 cagggtctctg agaacagagc aggactctct ggatagcttg tgcaccacag ttctggccat 360  
 gctcctggct gctgtctggc accgtttgtt ctcattcatg ccctgaacct ggctcttcag 420  
 ccttcccaga gactctgtgg gctgcccagc atccttccca aaaatccctc ttctgtttta 480  
 aattatccag agccagtttc tgttgcatth ttaagtcaga gttctgacca attcacagtc 540  
 ttatttcagt ctccgcatcc aacttatttt tgtattttgc tttggtacac acggttctga 600  
 gaaaattcta atcatacaga tggatgggta taaataataa tgataacaac tattactggc 660  
 tgggcacggg gcctcctgcc tgtcatccca acactttggg aggctagggc agggaggatca 720  
 cttgaaccca ggagttcaag accagcctgt gcaacatagt gagaccccat ccctacaaaa 780  
 aaaatttaaa aaatagccat gcatggtggg ggggtctgt agttccagct acttgggaga 840  
 ctgaggtggg aggattgctt gagcccagga agttgagact gtagtgagcc atgatcgcac 900  
 cactgcactc taacctgagt gacaaagcga gacacancaa tgacagccac aaaaaaactc 960  
 ttacatagca ctactatat gccaggccct gtcttaacca ctttgcattt attaatctac 1020  
 ttaacaaacc ttttgaaggg agtctatcat taacatcccc ctttcgtaaa tgagaaaact 1080  
 gaaggacaga ggagtgattt gtccaaggtc aaggacttaa atctaggcag tcccaatcca 1140  
 ggatttgtgc tcttaactcc tgctaaagga ttttttttca gattatcttt tgagattaga 1200  
 atgtcttcga ttaaaccaat ctagaggccg ggcgcagtgg ctcagcctg tggccccagc 1260  
 actttgggag gccgaggcgg ggcgatcaca aggtcgggag ttogagacca gcctggccaa 1320  
 catggtgaaa ccccgctctc actaaaaata caaaaaaatc agccaggtgt ggtcgcgcac 1380  
 gcctgtgggc ccagctactt gggagactga ggcaggagaa tgcgttgaa caggaggcgc 1440  
 gagggttgca tgagccgaga ccgcgccact gcactccagt ctggcaacag agtgagactc 1500  
 cgtctc 1506

<210> 6  
 <211> 2572  
 <212> DNA  
 <213> Homo sapiens

<400> 6  
 gacagaagtg gcggttgctg acgcctggaa attcccctga aggtggagca ccaccaacc 60  
 cccctgggtc ccacctccc tcaaggctc ctcacctcc acctccacc cgcctggcct 120  
 ggcgtccacc tctgcggctc ctacctgggt gcaatcgagt taaatggctg ataagcagat 180  
 cagcctgccca gccaaagctca tcaatggcgg catcgccggg ctgatcgggt tcacctgcgt 240  
 gtttcccatc gacctggcca agaccaggct gcagaaccag cagaacggcc agcgcgtgta 300  
 cacgagcatg tccgactgcc tcatcaagac cgtccgctcc gagggctact tcggcatgta 360  
 ccggggagct gctgtgaact tgacctcgt caccctcgag aaggccatca agctggcagc 420  
 caacgacttc ttccgacatc agctctctaa ggacgggcag aagctgacct tgcttaaaga 480  
 gatgctggcg ggctgtgggg ctggcacctg ccagggtgatc gtgaccacgc ccatggagat 540  
 gctgaagatc cagctgcagg atgcagggcg cattgccgcc cagaggaaga tccctggctgc 600  
 ccaggggcag ctctcgccc aggggggtgc ccagccctca gtggaggctc cagctgcccc 660  
 tcggcccacg gccaccagc tgacccgcga cctgctgcgg agccgtggca ttgcccgtct 720  
 ctacaaggga ctcggggcca cgtgctcag ggatgtcccc ttctctgtgg tgtacttgcc 780  
 gctctttgcc aacctgaacc agctgggccc cccggcgtcc gaggagaagt cgcctttcta 840  
 cgtgtccttc ctggccggct gtgtggctgg gagtgcgcc gctgtggccg tcaacctctg 900  
 tgatgtggtg aagacgcggc tccagtcact tcagcgaggc gtcaacgagg acacctactc 960  
 tgggatcctg gactgtgcca ggaagatcct gcggcacgag ggccctcgg ccttccctgaa 1020  
 gggcgccctac tgccgcgcgc tggcatcgc gcccttttc ggcacgcac aggtgggtcta 1080  
 cttcctgggc atcgcgagt cctgctggg gctgctgcag gacccccagg cctgagccca 1140  
 gcacccgctc caccacagcc agctgggcag ggcgggtgtg gggctggagc caggcagcta 1200  
 gccaggagc gagcaaggga agaccctcc ccagccctcc cgtcggcagg ggcagcaggg 1260  
 ggcagggtgc aggggtccaca taggtggtgc acacgcaagc ccccggggt gctgctgca 1320  
 ccgttgggat caatgtctca tttatgtaga aaatgcagaa atctttacat tctcaagct 1380  
 agccctgcc ccaatcctgc cctggcctga acaccccccag ggacagagct ggtctctggg 1440  
 ctgggggccc ccgggcctgg gccgggcagg ctggaccata cccccagtc accagctcca 1500  
 gtctccacag ccactcctggc ccacacaggc accccacaca aacctattta ttgaatctgc 1560

```

tggacccaag eggctctcca gcccttctgt ccttccccag ccgctcttgt cgccttgga 1620
ggacttgact ctgcctccct ggcaagcctt gcaagaggac tggggtctcc tgccctctct 1680
gttgagccag gaatcccaag tgaggggttg ccttgaggtc tgactcttgg ggcaagcccg 1740
ccaccactg tgggactttc tgggtgggtc ctcagctccc accccaggct ggggcccaga 1800
ttgtgaggtc tgtgtgcatg tgtgtgtgta tgtgtgtgtg catgcgtgtg tgtgtgtgtg 1860
ggatctggcc tggcccttgg ggatggggct gctggggact gcccccttc ccgcgtggc 1920
caggcgctct gtgtgctgtg tgtgccccag gctctgttga ccccgctccag gaactaactt 1980
accagcttg gtctctcctg agtcctccac cctggcctgg gattggccag ggagcagggc 2040
gggcattggg accagtgtgg agcctgaggg tgccctgccc gctctggagg gagggccagg 2100
agctgccaca cccccaagtc ctctcagggc ccacctctct ttttcagcct ctgcataagg 2160
cccctgggta cactgcagaa gccccatcct tcccgcctcc gggcataagg ccctgacca 2220
cacttcagaa gccccatccc ccctgccacc gggcgatccc tgctgtgagc cgaagctctc 2280
cctgccccgc cctggccatg tgatcgtgtt ggtgacagac cctgatgtgc tgggtgtgtg 2340
tccccaaaac cggggccctc cacagaggcc ccttccccag gacactacct ggggctcagg 2400
cctggacccc ccagttcac ggttgctcct ccttccccag cctccccgta catcagaacc 2460
ttggaagctg ctgctgtgtc ttacagaatt atattttttt cttttgaaga gttttaagaa 2520
gttghtaactt tttgtgtctt gtcatgtcag agaataaata aatattctaa gt 2572

```

&lt;210&gt; 7

&lt;211&gt; 1704

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 7

```

ctgtgcctga gcctgagcct gagcctgagc ccgagccggg agccgggtcgc ggggggtccg 60
ggctgtggga ccgctgggccc cccagcgatg gcgaccctgt ,ggggaggcct tcttcggctt 120
ggctccttgc tcagcctgtc gtgcctggcg ctttccgtgc tgctgctggc gcagctgtca 180
gacgccgcca agaatttctga ggatgtcaga tgtaaatgta tctgccctcc ctataaagaa 240
aattctgggc atatttataa taagaacata tctcagaaag attgtgattg ccttcatgtt 300
tgaggagcca tgccctgtgcg ggggcctgat gtagaagcat actgtctacg ctgtgaatgc 360
aaatatgaag aaagaagctc tgtcacaatc aaggttacca ttataattta tctctccatt 420
ttgggcccct tacttctgta catggtatat cttactctgg ttgagcccat actgaagagg 480
cgcctctttg gacatgcaca gttgatacag agtgaagatg atattggggg atcaccagcc 540
ttttgcacaa gcacacgatg tgctagcccg ctcccgcagt cgagccaacg tgctgaacaa 600
ggtagaatat gcacagcagc gctggaagct tcaagtocaa gagcagcgaa agtctgtctt 660
tgaccggcat gttgtcctca gctaattggg aattgaattc aaggtgacta gaaagaaaca 720
ggcagacaac tggaaagaac tgactgggtt ttgctgggtt tcattttaat accttgttga 780
tttccacaac tgttgcctga agattcaaaa ctggaagcaa aaacttgcct gatttttttt 840
tcttgttaac gtaataatag agacattttt aaaagcacac agtcaaaagt cagccaataa 900
gtcttttctt atttgtgact ttactaata aaaataaatc tgccgtgtaa ttatcttgaa 960
gtcctttacc tggacaagc actctctttt tcaccacata gttttaactt gactttcaag 1020
ataattttca gggtttttgt tgttggttgt ttttgtttgt ttgttttggg gggagagggg 1080
agggatgcct gggaaagtgg taacaacttt tttcaagtca ctttactaaa caaacttttg 1140
taaatagacc ttaccttcta ttttcgagtt tcatttata tttgcagtg agccagcctc 1200
atcaaagagc tgacttactc atttgacttt tgcactgact gtattatctg ggtatctgct 1260
gtgtctgcac ttcatggtaa acgggatcta aaatgcctgg tggtttttca caaaaagcag 1320
attttcttca tgtactgtga tgtctgatgc aatgcacct agaacaaact ggccatttgc 1380
tagtttactc taaagactaa acatagtctt ggtgtgtgtg gtcttactca tcttctagta 1440
cctttaagga caaatcctaa ggacttggac acttgcaata aagaaatttt attttaaacc 1500
caagcctccc tggattgata atatatacac atttgcagc atttccggtc gtggtgagag 1560
gcagctgttt gagctccaat gtgtgcagct ttgaactagg gctgggggtg tgggtgcctc 1620
ttctgaaagg tctaaccatt attggataac tggctttttt cttcctcttt ggaatgtaac 1680
aataaaaata atttttgaaa cacc 1704

```

&lt;210&gt; 8

&lt;211&gt; 2144

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 8

```

ggatttgggc aggcaccgtg gatccccggg aaggggacga gttgacagat gtgcgtgagg 60
aggtctctgg tcggcctcac cttttgtacc tgctacctgg cttcttacct cacgaacaag 120
tatgtctgtg ctgtcttgaa atttacctac cctacattat tccaaggggtg gcagacgctc 180
attggtggac ttttgcctca tgtgtcctgg aaactgggct gggtagagat caacagcagt 240

```

```

tcaagatctc atgttcttgt gtggcttccct gcttcagtgc tgtttgtggg tataatctat 300
gctgggtcca gagcattgtc cagactgaaa acatctcctg caaagatctg tagtgccctc 360
ctcctcctgg ccgcagcagg atgccttccc ttcaatgact ccagggggct tataaaattc 420
tacagaagtc ccagaaaccc agtgcatata gtgacattga ccagcaatac ttaaacata 480
tattcagtggt ggtgctcctg gcatttgcac ctcatccac aggtgatctc ttcagcgtcc 540
tggacttccc attcctgtac ttctacagat tccatggtag ctgctgtgcc agtggatttt 600
tgggattctt tctcatgttc agtacagtga agctaaaaaa ccttctggcc ccagggcagt 660
gtgcagcctg gattttcttt gctaagtcct ggaagacaat catggatagg ctcccttattt 720
ccttctctga ggctgtgcag gtgtccagag ctcaagtgc ttacacaagg ggactcagtc 780
gatccaagat aatcacagct ggcttatcaa tattgctgtt tgatgcgac ctgaccagt 840
caaccacggg atgcctcctg ctgggtggc ttggagaggc cttgctggtt ttctcagac 900
ggaagagctc ctgaacaaga cgggtcaagag aaagactcac aggtctgtgc gggagaacag 960
cttgtagacc tgtgtacgag cccctggctc catagctccc tgttgatgt gtacagaaga 1020
ggaatgcaag gacagtggg ccaggtgggc agtgccatca cctcaccaca agtgaatgt 1080
gtggtggctg atgaggccga ggccctgggt cttcaaggag caccctttct gggggtctgc 1140
aggtcactgc agaggagcgg tctgttacct cttccatttt ggagaacctc tctcaacct 1200
gctgtagctg gttctgcaga aacagggaag acaggatttc atgggctggc tctgctcgcc 1260
tcgactgagc ttccacacctc tggatgccac atgctctctc ccaaactctg ctttcagtgc 1320
aaggtagtgg gcctaagggg tttggttgtc tttttttttt ttcattttta aaattttaaa 1380
tttttattta ttattatttt tttagagcaa ggccctcactc tatcgctag gctgaagcac 1440
agtgggtgca tcacagctcg ctacagcctt gacctcctag gatcaagcca tctcctgccc 1500
tcagcatcca cagtagctga tgtgcaccac cagaccctgc tcattttttt tatttttatt 1560
atttttagaga tggggatctc actgtgttgg ccaggctggg ctcaaactcc tgggctcaag 1620
caatcctccc accttggcct caaagtattg agattacagg catgagccac tgcaccgggc 1680
ctttctcatt tttattttta aattgacaga cgtaacagtg cgcattttat acgcacaaca 1740
caatgctttg ggaatggtta aatctagctc acaaatgcac taccctcacac ggttgtcatt 1800
tttgtggtga ggcttgggtg tatgttttgt ttcattcatt tttttacatc cttggagtct 1860
cctctgggtc cgtcctttct ttgctgtcat gctggcttgc ctaaggccca ccgccacctg 1920
cgtacgagca ttttaaaactc tagagttagt gacagccttt ttatgggtgg tgttactatt 1980
tatttctctg ctctaaactt ctctgtgtcc ttataaactt gtcaggatgt gtgttgcgtt 2040
gaattctgca tgtccttttt ttgcccaccc tcagggttaag ctggtactaa cttatcccca 2100
gaggaacacg ggtttatgag cactgacaga tgtcttccct gggc 2144

```

&lt;210&gt; 9

&lt;211&gt; 1180

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 9

```

caggcatgcc ttaggggtgc gcttctctcc catccaattc cagctcctac tcaattctaa 60
acctgacctt aagagtggga ccagggtgtc aggggggtgca gagtgtgggt gttcccagg 120
ccatgggtgc cctagcactg ggaggatgtg agcaagtagc aaaggtctgg gcacatctga 180
gttagcagcc agggctgcta cctgggagga ctctaaactc tcccagcaga gagcttgcg 240
ggctgtgctg tgatctgcta cttctaagca cttatatgag gcaggggcac cctttcctat 300
ttgcacatgg gtgagtagca cttagtccca agtactctcg acctgcagc tctgctctg 360
gcaagacccc ctctacctc tctccatcat gggttcctca ctattgcctc cctgctctg 420
gtactttcag ggccctgggc cccacccgaa gttccaggta acactgaatt tctgggaaga 540
gagccatggc tccagccata ctccacagaa tcttatcaca gtgaagggtg gctcggagca 600
ggggttagagt acctatctaa tgagagcaga gacagtgtgt ctccaggagg caaaggggg 660
ctccagtggt ggaaggagct cctgggggtg gtgtctgtcc ctgatgcag cactgagatg 720
ctcttctcca tctcttccaa tacagatgga gcaggccttt gccgatact tgcaggagca 780
gactccagag cagcaggcag ccattctgtc cctgggttag agcctggggg acctatctc 840
cacctcacct ctttgttctt cctgtctcct ttgaagtga ctattcttc acacgattga 900
cctgtcctct ttgtgataat tctcagtagt tgtcctgtat aatcgtgtcc tgaataatc 960
cgcacacact ggctgggtga gaactcaagg ctaatttttt atcctttttt ttttttaat 1020
tttgagatat acgccctctt tcactctgta gggactagga aattccaaat ggtgtgaacc 1080
cagggggcct ttccctcttc cctgacctcc caactctaaa gccagcact ttatattttc 1140
ctcttagata ttcactaagg acttaaaata aaattttatt 1180

```

&lt;210&gt; 10

&lt;211&gt; 1745

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 10

```

tcaccgtggt gcccgggctg gtcttgaact cctgagtga ggcatctgc ccacctcacc 60
ctcccaaagt gctaggatta caggatattg gtttttgggt tggttttcaa gcaacctttc 120
taaattttgc tatgctcact ctttcttcac atgttggtac tggctagata cagattttgc 180
tttcctattg gagactcttt tgagagctgg ctatccctc ttgctccttt tcttttttct 240
cttcctact ttcaagtttc ttgctctttt tcttaccoca taagttacca gaaattcata 300
cccccttgag agggcttttt gtttgaactt cagtctttag tttcatcaac ttttctaagg 360
aaattgatct gttaatgaaa gttggcttgc ttgacttcag aatatctgta ttattcagag 420
atgtgttttt ctggttgctt tgtttgagca cagtgtaaat atcacccatt gcatagcttt 480
ggcagtgaac taaatctggc agcgtagatc gagaaaagct agaagtctca ccacagattg 540
tatttcagtg aaagggattc tttttaagtg ctgataaaac taaagaaaac ctataaacat 600
ggaaaacaat tattaaacc accatatgct cactatgcta ttaaattggtg tgacagattc 660
tagaaaagat taccttttgg taagagcact gcttggtaac tatagttgat tgcttttagat 720
gtctagtgtg tatacaaaag catgaatttt attccttata accaaagtag aaacctactc 780
tgagcaattt gacaaaaggt ttacattatt tatttttagtg tagtttaaga ttacagtaag 840
atacaattcc caaagagtga aatataaggc tgggcgtggg ggatcacgcc tgtaatcctg 900
acactttggg aggcgtgagg ggggtggatc cctgaggtca ggagttcgag accagcctgg 960
ccaacatgac aaaaccccca tctactaaaa atacaacaat tagccagacg tgggtggtgcg 1020
caccgttaac cccaactact agggaggctg aggcaggaga atcacttgaa cctggtgggg 1080
cggaggctgg agtgagctga gatcatgcca ttgcaactca gcctgggac actctcaaaa 1140
aaaaaaaaaa gtgcaacata gcttttcaca aaatatggaa ctgtggtagt gtagaacaat 1200
gtctcaatat acctcctaca ctaagtataa tagtaaatat ctgtatttgg tggcataata 1260
tgttcttagt ataaaccaa aacacatgct gagcattgga cattgtccaa tgtttaattc 1320
atatgattca tctgagttt ctgactgaga tcattctttc agactatgtc tatttgcct 1380
gggaccata aaatatgcag ccctaacatg atttcatttt tgtttccttt cctggaaaag 1440
gagaaatcat tcagatcagc tttcatattg ccttatagac gatgacttca aaatagtgtg 1500
aaagggactc ctttggttct gaactgctc aacacagtag ccactagcca catgtggcta 1560
ttgaaagatt gaaatgtggt tattccaaat caggatgtac agtaaatata aaatacacac 1620
cagatttcaa aggccttcat gaaaaaagta atgtgaaata tctcactagt agtttttata 1680
gtgattacat gttgaaattt taacattgtg aacatattag tttaaataaa atgtattgtg 1740
aaaat 1745

```

&lt;210&gt; 11

&lt;211&gt; 2157

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 11

```

gaatttttgg tgacatgggt ttgggggagca ggtcactgct atggccttac ctttggacct 60
gccttcaaaag tgtgccttca gccttttaac aggtcacttg gtacagaca ttgccttgg 120
atctggagaa aaacttcatt atgcagaaat gtgctattgc ctggctgggg agggcagaca 180
tcatgtccag tgcttttcca gactgtagga agctgagcca tctgtctcaa gctctgtgtg 240
gtggaagcag aatgtatagg gcttgaaaca taggctgtga tttactatcc cagacctccc 300
actccaaagc tatggctgtt gcctgggcag agctggggga gtgagcaggg ctctggcctg 360
atatcaccoc atctggctgt gcacttggat ttcttggct ttaggctaag cccatgctgt 420
gcctcttgta ctcatctct tgtcgggcac atcagccttg tgtgtcctca gcgtcacagc 480
ccagatacag cttcccttaa atgtaagcta aatgtcctgg ctccagcct catcaagggc 540
cacattgttc ttttcatggg gaaagatgga aaatatgac tgaacctgac atttggccca 600
tgattctggg ggaatcattc caggaagatt tcattcttag catgtgggtg aaaaaatctg 660
tgagattcc tagaataagt cagtactttg aagtccttat tcaggccaag aaggcctggg 720
aggtgttgag agcttgtggt ctgtctgtac ccagtgtggt ctgaggggtg ggcattgtgt 780
ttgctgttca tttcaaaata acagtttagt ggactggaat ctgaacctat tccacctct 840
gaaaaaaga taatatgtgg gtgtaacata gccagtttg ggaaattggg tctcttgaa 900
gatagttagg atgttttacc cttgtgagtt catatgcctt gtcttccag caaagaaaat 960
acagtgcctt taaaaaacat aactttcagt ctatgtgttt ttagcactct ttttctaatt 1020
catctatatt cactcattca gctcattttt gtgagtacc actatgcac agacctagca 1080
ttaggtgctg agggcatagg gatggagaag acataggtct gcacctgta gctcccagct 1140
tgtgtcatca ggcagttaca atatgatgcg gtcactgcct tgaggtctgc atccctggtg 1200
catgggttac ccggccactg agagatcagt acagcaggac agaaaggatt ccagaggaa 1260
gtcagtctaa gcagatcct gaaagatctg tagctgcaga agccaggga aggcattccc 1320
tgaggagaaa agagcatatg tggaggcctg atggtagcac agaacacgct gctttgaggg 1380
agttttgaga gaaaaagaga gggcccgagg cagggttga gggcacgagc atgagggaga 1440
tgatgggaca ggagttccca atagaggtca agcaggaggg gctggagagg cttagaggaga 1500

```

```

acaggatttg tcagtgtcgt ctgtggttaa gttgtaactg gaggatgtca ccatgaaatg 1560
acctgctggg gctcttgaca aagactgggt ccgggcgcgg tggctcacgc ctgtaatccc 1620
agcacttttg gaggccgagg cgggcggatc acgaggtcag gagatcgaga ccatcccggc 1680
taaaacggtg aaaccccgct tctactaaaa atacaaaaaa ttagccgggc gtagtggcgg 1740
gcgcctgtag tcccagctac ttgggaggct gaggcaggag aatggcgtga acccgggagg 1800
cagagcttgc agtgagccga gatcccgcca ctgcactcca gcctgggcga cagagcgaga 1860
ctccgtctca aaaaaaaaaa aaaaaaaaaa aaaaaagact ggtcttccca gcactttggg 1920
aggccgaggt gggtagatca caaggtcagg agatcgagcc catcctgggt aacatgggtga 1980
aaccctgtct gtactaaaaa tacaacaat tagctgagtg ttggtggcga tgcctgtagt 2040
cctagctact tgggagcaga ggcaggagaa tcgcttgaac ctgggaggga gaggttgag 2100
tgagccgaaa ttgtgccact tcactccagt ctgggcaaca gagcgagact ccatcac 2157

```

&lt;210&gt; 12

&lt;211&gt; 2781

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 12

```

attgacttga taaacatcga gagcttctcc agtcgtgtgg tgtctttatc tgaataccgc 60
cagagcctac acacttacct gcgctccaag atgagccaag tagcccccag cctgtcagcc 120
ctaattgggg aagcgggtgcg tcacagggga ctcaaaaatg ggagaataag gactgttgcc 180
atgtgcacct gcactgctgt atttcgtgac ccacatgtc ttccctagtt gtgcttgatg 240
gggaggtggg gagcagggct gtcgtgcaac tgggcagggtc agcagttcat ttctctgact 300
gcttccttga ctctctctcc aggtagggtgc acgtctcatc gcacatgctg gcagcctcac 360
caacctggcc aagtatccag catccacagt gcagatcctt ggggctgaaa aggccctgtt 420
caggtaccag tgagggcacc tgcccacaat caagtgccac ttctggtgcc cactgcttgt 480
tgggggatca cgggtgatgc tgaccagggc tccctgacct atacaggcct ctgctatggg 540
gggtgatggc attcctggtg tctgagtgat tcccagggcc cagcaaaggg accaagtttc 600
caggtcagcg acattggatg ccttcctctc gcctctggga gctatgggtt ggcatgcatt 660
ggggtagaga tccaatctgg cctgaggtc actcaggact tccgggtgag aggaggggag 720
gagctgagct gccttggcta atgggggtga aatttctgat cttaaactct cactgaata 780
ttctctcaga ccctgaagac aaggggtaac accccaaaat atggactcat ttccactcc 840
accttcattg gccgagcagc tgccaagaac aaaggccgca tctcccgata cctggcaaac 900
aaatgcagta ttgcctcacg aatcgattgc ttctctggta tgggtggggg ggcgttggca 960
gggtgtagaa ggggctgggt ggctgggtgg ggaggcttgc aaccatagct tccacaatga 1020
tggcaatatt tttcgtcaac agcagttcac ctagttagtg ttgagactct ggtctgagt 1080
gaagctgagg gtagagggaa cacagggttg gggtagtttc tctctttggg ctgacaggct 1140
ttgtcaccce cacacatcca gaggtgcccc cgagtgtatt cggggagaag cttcgagaac 1200
aagttgaaga gcgactgtcc ttctatgaga ctggagagat accacgaaag aatctggatg 1260
tcataagga agcaatggtt caggtcagtt gggctttgct ggggtgtggg tggcatagct 1320
agctgttgga ggtgatgaac tgtctgagcc tgaccttcta gaatggaggc aaaaaaactg 1380
atttaatgag cctgatccaa taaagccaga aaggagtcct cagagcacca gaagtcttca 1440
ggccctttta gcacttttct ttgaccaggc agagggaagcg ggctgctgag attactagga 1500
agctggagaa acaggagaag aaacgcttaa agaaggaaaa gaaacggctg gctgcacttg 1560
ccctcgctgc ttcagaaaac agcagtagta ctccagagga gtgtgaggtc agtaggcagc 1620
acggccctgg cagagatcct aggtttagg attttcaaca gcagaacaaa ggaatgctg 1680
aactacctct tgattctata ggaaggagat aggtgctgaa cttgctcaag agcccagaga 1800
gctggttcta gctcacaccc gttccctggg catgtgtgtt ctgtcctcgg ctgcctccca 1860
ggagtcctca acctggggta gtgtaaattc ctgctctgct tattatcaga cgtgtgtccg 1920
gaggtggtcg tgtttcacag tggggatggg ggtaggagg tcccaatgt gctaagctac 1980
aatcattctc cctgagattt tcatttagca ccagtttct taaacagtgt ttcaggggcc 2040
tgtctggaac ttggcatgat ggttctgttg cgaccagcat ggtgggtgtt ttttaggtt 2100
ttttttttaa tgggtctagg taatttctca tgacatgttt tcttctaat ttgggacagc 2160
ctttggggtg gatttctaaa gttataccca cacaattaaa ctatcccaga aacactgggc 2220
aatgttaacg acacgcgttc cctgccttg gctacttaat tgctgaagat gtaatgagca 2280
ctgttctcac agcctgttcc cctgtccttc cctttaggag acgagtgaag aacccaaaaa 2340
gaagaaaaag caaaagcccc aggaggttcc tcaggagaat ggaatggaag acccatctat 2400
ctctttctcc aaaccaaga aaaagaaatc tttttccaag gaggagtga tgagtagcga 2460
tcttgaagag accgctggca gcaccagtat tcccaaggag aagaagtcta caccgaagga 2520
ggaaacagtt aatgaccctg aggaggcagg ccacagaagt ggctccaaga aaaagaggaa 2580
attctccaaa gaggagccgg tcagcagtg gctgaagag gcggtgggca agagcagctc 2640
caagaagaag aaaaagttcc ataaagcatc ccaggaagat tagaatgcaa atggacattc 2700
tctgggaggt ggggcatacc atagcccaag gtgacatttc ccacctgtg ccgtgttccc 2760

```

caataaaaaac aaattcacag g

2781

&lt;210&gt; 13

&lt;211&gt; 806

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 13

```

gaataacttca gagatctgaa gtattcattg taatctaagg catatcccac cacaataaag 60
tttggaaatct caaatccagc atagtcaggt ctaaagccgt cacttctgga tgttctcttc 120
accaacaaac tggctacctt taccgtgctc attgatgacg catatgtgat tcagatctct 180
gaagtattca ttgtaatcta aggcatatcc caccacaaat aagtttggaa tctcaaatcc 240
agcatagtca ggtctaaagc cgtcacttct ggatgttctc ttcaccaaca aactggctac 300
cttaatcatg ttgggcttgt atttctctat attgctgagt agtgctttca tggctctccc 360
agttccgaca acatcctcaa caatgagaac attctttcca gccagcgttg aaagatcatc 420
gcctccgatt atctgcatct caccatgga ctggtcattc ctgtaacttt ttagtctgat 480
gaaatcaacc ttcattgaga caaatcgatc tgaatttcgg ctgatgttct taagggtgtc 540
tacgagatca gcacagaatt tgtaacctcc ttaagcaca cacaggacca tgatgtcact 600
atatcctatg tctttcataa tctccttggc cagccgctca attctgtcca caatgatacc 660
atgagggatg aggacatact ccaagtctcc ataatagtgc tgtgggtacg tgaataaatt 720
caagtcatat cctgnccant catccataat caccagcct cgtccgtagt ctggcgcttc 780
ctcgtgctc cggccatct tagaaa 806

```

&lt;210&gt; 14

&lt;211&gt; 2099

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 14

```

tttctttctc ttgcctgatt gctgtgacct gaacttccaa tactatgttg aataggagtg 60
gttagagagg gcacccttgt cttgttccgg gctacctgat tttctaaca aaagtttttc 120
atctttcatt tgtgtatato aacatttcat tcaaatacaa accagattct cttggttact 180
ggatctttca atgttagtgt cctgatagtt tctacacaa gatccaactg gctagcttct 240
ttcaaattta acccaagaaa actcaaagggt ttgtttacat ttttccaagt agtccatttt 300
aatggtatga tttcaatatt attttacaag attagggtat taatgaaagt taagtttatt 360
tatcactgta tattaacat ccaatgagt cttcagagtc taagttggct aagcatcatg 420
cagactgaaa gcgtagaaca tccagctact ctctgacaa agaccatttc gaaatttttg 480
atgacattta caaacatctt tctaaaagta gccagtgggt catgaggtag tgtgaagttt 540
ctgagtgaat atctgagaga ggtgtgagtc cagtcttttg gaccattttt tctgagagg 600
cctttactga tccacaaagg tttagcagct cttctgagag cctctcagga caaaggagg 660
caaagtttga gtccagagct ttgttagagt ggcagtcttg gtaagccatt cgtatcttag 720
gtaaaatgaa aggaaaacag ccttactga gactgcattc aatatttgag ttactcgagt 780
gaatcccaa aatctgaagc catgaaataa tgagagtga tcttgatttt ctcgtgcac 840
taggcactgg acatccagca aaagcaattt aaaaattctt tcaaagagag atattaacat 900
tctagacatc atttctacct ataatttttc atgtgtaata gccgattaaa taagagagt 960
ccctgacctc cgttacagga cattcaacag ggggtgtgtc catctgttca agtgctgcat 1020
gttcaaaacc cttatgggca gggaaacatg cagacagggg tgcaggagcc ggggagagt 1080
cttctggact cggggcccca tggtagcatc taggggtggg tgctacaac tcccagagcc 1140
ctagtgggca tgcctacagt ctcttttagc tctgccatcc tcagatggct taagttttaa 1200
ccagctcagt gtctcttgg taccatctt cttgtttgg gtccaggaag aatcaggtea 1260
cacatggact tgaaggatgg tgaatgcagg ggttttactg gatgatggag acagctccca 1320
gtgggatgga tggggagctg gaaagggggt ggaaagggaa gatgatcctc cccctggagt 1380
tactgtccc atggccgatt tcttcttga ctgaccctgg ttgaactcct ctcaatgttc 1440
agatgctcct tctcttctct ctttctctgc tgaactgctc ttctgctcct ctgctcttct 1500
atattatctg tcatctgctt gtctactttt gaagcctggg tttaggggtt tatatgaata 1560
caggataagg ggggtgtggca ggccaaaagg caaaatttgg gtgtgaaaac aggaatgcct 1620
gttcccattt agggccatg gtttccaggg ttgagagtgg ggcctttgct ggggaactgc 1680
cctcttctac ctagtatttc cctgtatcct gtgtgtatca ccaacacact atcaaagata 1740
gtcatgtact tgaggggaca atataacaaa aatgagatgt aatatgagta agagacaata 1800
gaaacaaatc cactaatatg ccagatagta aagttacctg gcacacttgc tgtacaactg 1860
tgattactca actcatggaa ataaaagtca aactgagaa tttcagcaag gaactgcata 1920
ctatagaaaag tgacattgca atatgaagaa gacccaacta caaatttgag aactgataaa 1980
taccatagct aaaattaaca cctcagcaga aggccttttg gggggactag gcagagatga 2040
agagataaat agtgactaca gagaaacagt gaactggaag ataagtcaag aatctactc 2099

```

<210> 15  
 <211> 764  
 <212> DNA  
 <213> Homo sapiens

<400> 15  
 acgcaccctt gcccttcgac cgcgtgctgg tgaacgagca gggacattac gacgcctca 60  
 ccggcaagtt cacctgccag gtgcctgggg tctactactt cgccgtccat gccaccgtct 120  
 accggggccag cctgcagttt gatctgggtga agaattggcga atccattggc tctttcttcc 180  
 agtttttcgg ggggtggccc aagccagcct cgctctcggg gggggccatg gtgaggctgg 240  
 agcctgagga ccaagtgtgg gtgcagggtgg gtgtgggtga ctacattggc atctatgcc 300  
 gcatcaagac agacagcacc ttctccgat ttctgggtga ctccgactgg cacagctccc 360  
 cagtccttgc ttagtgccca ctgcaaagtg agctcatgct ctcaactcta gaaggagggt 420  
 gtgaggctga caaccaggtc atccaggagg gctggccccc ctggaatatt gtgaatgact 480  
 agggagggtg ggtagagcac tctccgtcct gctgctggca aggaatggga acagtggctg 540  
 tctgcgatca ggtctggcag catggggcag tggctggatt tctgcccag accagaggag 600  
 tgtgctgtgc tggcaagtgt aagtccecca gttgctctgg tccaggagcc cacggtgggg 660  
 tgctctcttc ctggctctct gcttctctgg atcctcccca cccctcctg ctctctggggc 720  
 cggccctttt ctcagagatc actcaataaa cctaagaacc ctcc 764

<210> 16  
 <211> 2393  
 <212> DNA  
 <213> Homo sapiens

<400> 16  
 ttgctgtacac acttaggatt gttatgttca tgggatgacc tatatcatta tgtaatgctc 60  
 ctgttttatcc ttcataatat tctttgctct gaagtccact tegtctgata ttagtatagt 120  
 ttctgcagct gtatttttagt tattgattta tggatatctt tccccaaac ttttattttc 180  
 agcctactta tgtctttata tcaatattta aaatgcgttt cttatataca gtatatacat 240  
 gggacttgca ttttattcag tccatgtcat ttctgtcttt taatttatgt gttagaccac 300  
 cccttttaat gttattattt gtgtaattgg attaaaatgt accatattgg caaccgtttt 360  
 ctggtttggtt cattttttggg ttccagtttt cttttgatgc cttctctagt attaactgag 420  
 tgttttttat gattctgttc tatttcctct actgacttat tttttatact tttaaaaaat 480  
 tgtattttatc taccttcaga taatattaca ttgctttaca tggagcctat agactttact 540  
 gcagtttata cacagctcct tctttccgtg ctttatgcta ttgtggccat acctttttac 600  
 atttaccatct actgtgaacg cacagtacat tgttttacac attcagggtat ctttttagagc 660  
 aattaaaaaa taagaaaaaa aattgtgtcc ccatttatte tattttcact gctctttgtt 720  
 tgtttgtgta gatccgggccc tccatctgat gttgtgttcc ttctgcctga ggaacttccg 780  
 ttttaacattt attgtccact aggtcaagca gctggcaatg aatccctca gtttttggtt 840  
 ttctaagaaa gtctgtattt ctctttcatc ttgaaaatt attttcaatg ggcatagaat 900  
 tctggattta acagttttct tgatattgtt accatatttt ttatttgac cattttcatt 960  
 ggattctttt taatagttgt cagcactcag ctgaaagtcc catctgttat tgtctacctt 1020  
 tccctttaga gccttcaaaa tatgaacat agttatttta aattctcagt catttctaac 1080  
 ataggtgtca catctgaatg tggttctgat tattgctttg tctctctgaa gtatgttttt 1140  
 ttcttgccctt ctgtatgcc ttgtaatttt gtgttgaaag ctgtacatct tgtgtaagac 1200  
 agtagagacc catggaaatt gtttgatcc tagaaatgtg catgcctctc cttcctagag 1260  
 gccttttagtg tgggagttag agtttatcta gttaggagt ttgctagggtt gagagatttg 1320  
 ttggcagcta tctcactgc aggaaaggct tcatgttctt gttagagatac cttgtgtttt 1380  
 ggctgggggt tggatcacia gaacatcacc tgttcagttc tagtttttagg tcttctttt 1440  
 gcactatgcc tcagaaaggg tctctctgca cattcttgtt ctccgtttt tctccaagca 1500  
 ctgttttgtt acctgtaatg ctaagctcct tagcttgaca ttgtggggca agaaggagga 1560  
 tgggggtctg tctctgttcc gattgagtta cagtcgggta cctgcacat tttcttaggt 1620  
 ttgtgggctg tgacctctc agttctctc cctctcccc aagtgttgtg ggagttctg 1680  
 tgaatcctg tccctcccca aggagacagg ttgtatgtgt atgtttttcc tgttcccttt 1740  
 ccacactgca gtgagttttc agcagtgtcc taaggacaac agtgcgtgcc gcccttctcc 1800  
 tcacaggata ggtcttttgt ttctctgggt gagacagggg agatggatcc aggtgtagtt 1860  
 ccttgccact cctctagggt tactgcttct ctccccata tctggaacac agcggacact 1920  
 tcttaccoca cctcctgtg agcacctggg tgatggatcat ggcatagatc ctgtgtgaga 1980  
 atgtaaccct cagaggtttc acacaatctt ggcagccac tcttgactct aaccagatac 2040  
 ttgagcggga ctccctgac tggggttctg ttgtgtctgc cctcggtgac acaagcttgt 2100  
 gtctccttag attttgggt gttgattatc tgggacctcg gcttattgat gggtttgga 2160  
 aaagttaata agtttaaagt taggctgtac gtgtgtgtgt gtgtgtgcgc gcgcgctgc 2220

acgtgcacgc ttgtgtgtgt gtttaacgta aacagggtccc atccttggtta gactttacag 2280  
 caagagcagc cttgaatgaa atcatccttt ctctccagta acttattctc ccagtcattc 2340  
 agttctcttt agtcttttta caaattttac ttctttaaag aagatgcgtc tcc 2393

<210> 17

<211> 1580

<212> DNA

<213> Homo sapiens

<400> 17

gaggagtctc agaaaggaca cggctggctg cttttctcag cgccgaagcc gcgccatgct 60  
 cgctcctcaga agcgccctga ctcgggcgct ggccctcacgg acgctggcgc ctcagatgtg 120  
 ctcacctttt gctacgggac ccagacaata cgaatggaat ttctatgaat ttcgttctta 180  
 ttaccttaag ccctcaaaga tgaatgagtt cctggaaaat tttgagaaaa acgctcatct 240  
 tcggacagct cactctgaat tgggtggata ctggagtgtga gaatttggag gcagaatgaa 300  
 tacagtgttt catatttggg agtatgataa ttttgctcat cgaactgaag ttcggaaagc 360  
 cttggccaaa gataaggaat ggcaagaaca attcctcatt ccaaatttgg ctctcattga 420  
 taaacaagag agtgagatta cttatctggt accatgggtgc aaattagaaa aacctccaaa 480  
 agaaggagtc tatgaactgg caacttttca gatgaaacct ggtgggccag ctctgtgggg 540  
 tgatgcattt aaaagggcag ttcagtctca tgtcaatcta ggctacacaa aactagtggg 600  
 agtgttccac acagagtacg gagcactcaa cagagttcat gttccttggg ggaatgagag 660  
 tgcagatagt cgtgcagctg ggagacataa gtcccagatg gatcccagag ttgtggcagc 720  
 tgttcgaaaa gtgtcaacta cctagtatct cagcagaata tgcttctgat tctacatcg 780  
 ttttcaccac tgaatagtt ttctactgaa atacaaaaca ttcattaact gctataggat 840  
 ctgtctgcta atggtgctta aattctccca agaggttctc acttttattt gaaggaggtg 900  
 gtaagttaat ttgctatgtt tcttgcatga tgaaggctac atctgtgctt tgtaagtacc 960  
 acttcaaaaa atagtctgtt ttactttctg catggatttt cagtgtctgt catacattaa 1020  
 aaatacttgt cactgtttta agatcttgac tcttcatttg tttcagaata gctcttctac 1080  
 tgtattctga caactctttg ctttatagca ttttggttga ttcaaatgat aatggtagca 1140  
 tttccatgct tgtgacagca tttttaagtt attaatatat tttatcaacc tttccatcat 1200  
 gtctgttttc ctgggttttt ttggttggtt ttgaccagt aaaatttatt ttgtaatacc 1260  
 aaataggatt taagaaaatt aacgtatttc tttactatgg aaaaccacat tgcatttgt 1320  
 gacatcatct atattaaata tggttttcac attagtatt tgtcacttac ttggaaaatg 1380  
 atgctgttag gtcctggtat taaaaatcta gaaaagactt gttggtttat gtctgaaat 1440  
 gtctttattt ataattaat ttaactacta tttacttcat ttcggatcct gtttaacaaa 1500  
 gatacttgag acatccattt gttttaatga aatctgtatg gatatggaaa tgcttgcctt 1560  
 aataaaagcc tacatgtgcc 1580

<210> 18

<211> 1227

<212> DNA

<213> Homo sapiens

<400> 18

cccggagtcg gggccggggc cgccgggaaac ggttaccgag cggacctgga cgccctctgc 60  
 cttcgtcatt tcctgcccgc cggctcggtt ccggatgaaa cgaggagcca ggcattcct 120  
 tggaacaat gccatctttg aatgtgagag ataaacctag ttccagcatg tctgcagcag 180  
 agaccagtac atcaggctta ttcccacagg aagcctccaa aagcctgtgg cgcggcaacc 240  
 atttccagga ctaaataata atgtgtcaga tgccgtgtgag tggactgcct ggccaaatga 300  
 ctcatgaaga tattcacgga agaatagtca aaaaccaaag aaaaggcata ttctagaagc 360  
 acctcaatt ccatcgagga tttttgagca gctgaagaag aaagtcttga aaatatgagt 420  
 gacaggactc cagcacattt tttttagtgt tttcttcat tatctttgtt aacctaccg 480  
 cttttgtgta taatattaag ttattttcca ctactgcaat ggctagtaat ttacttaggc 540  
 tcagagtttt actctgtatg gacagagaaa taggaggtaa caacagtggg agaacaata 600  
 ggaacagttc actgggatgt tgggtcccag aaattggcct tcattgaata attcctaaag 660  
 ggtgtcgtgt gctgaattgc tttttcatag tgatgtgctg cttcttgttc atactcttat 720  
 gactttaatt tcacctttat ctactcccag cctctgtata tgctacgtt tttaaaaata 780  
 atttttggca ctgaagatct gattaccata ttttttcagt ttaaaaaata aatcctcgca 840  
 aatagacctt tggatatagt gcattctacc ctaggttatt ttctaggata caagaataga 900  
 acaatttctg ttctttccag cattactctt tactattcat atgttcttgt tnagtgtttt 960  
 gttgttctca tattctaggt ggaaatgaag ggtaatctct atgttctatt ttactgtttc 1020  
 taggaaacca gaaaaacatg ggtagtagaa atgtatngan atgtatgagg tctcttaacc 1080  
 attgtgttaa acttgcatta agcttctttt ttagcaatat cgatgtcagt gttacctctt 1140  
 ctttcttttt tattttatttt ttttgagacg gagtctcatt ctgtgcacca gactgggttg 1200



agtgcatga tgcgacgcg gctaact

1227

&lt;210&gt; 19

&lt;211&gt; 1362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 19

```

tttttttttt tttttttttt tttttttggg atccaatctc tttattgtca ggggtcccctc 60
cctgtggccc cccgccaac ctatagaaaa aacccaagcc tgggagtgct ctggggaggg 120
gaggtagtag ggggaaaccc ctgtgctcta cctcttgccc tgggcagtgct agacagggag 180
ggctcatggg gaaggagtag gccagtaact ccacctgcag aggacatggc actggctggg 240
atgcgttggg ggaggaggcg cctgctgcca gctttcctct ggtaccgctt ggggggtggc 300
atccagggtt ggggtcccgc cttgaggcct ggggcagcga tgcccttcac ctgctgggtg 360
ccattgctcc tgtcaggctg cttactgcaa ggccccatca tccgcgtctg tgcctgggt 420
gtgttccagc tcttctctgc tgtgtgtcag gagcccttcc tcatcgccgt cgtctcgggt 480
ccgtgcttcc ccttggggca ggcctgcctc agaagttgtg ttctcttggg gggctgggtg 540
ccggtgctg ccaccgccac cgccaccacc actgccaccg ccaccgctgc caccaccacc 600
gccgcgcgcg ccggcgccac ctccatcacc cttcttcttg ccactctgat tggccttttg 660
ctccgcagcg atctgtcca agcggctcag cagggcacat atattggact tgatctgtgt 720
cagctccgct ttgatggcct gcagctcact gctctttaac ttgatcttgg ctgagctgg 780
ggtgacagct gtggagcggg caaagagctt gacaggtacg ttagttttga cacgcccgg 840
caaagggact gtgaccggg gtcgcttcac agggaccgcc ctgggcactg gcacggggcg 900
cagacggccc cggtagtcga agagcctgtc gtagaagtcg tcccggtagt aatcatagtc 960
aaagatgtag ccactgtata tggcagatgc tgcctctctt agccccttgg gtctgtcagg 1020
cttaggctct ccagccatgt tgatgtccag ggtctgccc gccagcacc gccattctc 1080
tcccagcaca gctgcccggg catggcgctc attggagtag tgaacaaagg catagccctt 1140
gtgcacagaa cagccggcca cagggccata cttagagaag atgggtctca catctgattt 1200
cttcaccaga gctgtgttga ggtttccaat gaagactcga gagttgatgg acttgggggtc 1260
attcttgttg gttacattgc ttgcctgaag cttcaaggac atgggtgcca ccagtaacaa 1320
tgatgagctt agccagctgt ttcctccttt gggttacaga aa 1362

```

&lt;210&gt; 20

&lt;211&gt; 1573

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 20

```

cccggcctga gctggagtc cccgcgccc cccgcttcg cccggccatg gctgcggtg 60
cgctgatgcc accgcgctg ctgctgtgc tgctgttggc gtcgcccgc gccgcctcg 120
cgccgtccgc ccgcgatccc ttgcgcccc agctcgggga cagcagaac tgccagctgc 180
ggtgccgcga ccgcgacctc ggcccgcagc cctcgcaggc ggggctggag ggcgcctcg 240
agtctcccta tgacagagcc gttctgatca gcgcttgcca gcgtggctgc cgcctctct 300
ccatctgcgc atttgtggcc agaagctcca agcccaatgc caccaaaact gagtgtgaag 360
cagcctgcgt ggaagcctat gtgaaggagg cagagcagca ggccgttagc cagggctgct 420
ggagccagcc cgcggagcct gagccggagc agaagagaaa ggtcctggag gctccaagt 480
gggcccctct cctcttggac ttgttttcca ccctctgcaa tgaccttgtc aactcagccc 540
agggatttgt ctctccacc tggacatact acttgagac tgacaatggg aaagtgggtg 600
tgtttcagac tcagcccata gtggagagcc tcggcttcca ggggggccc ctgcagcgcg 660
tgagagtgac ctggcgaggc tcccaccctg aagccctgga ggtgcacgtg gaccctgtag 720
gccccctgga caaggtgagg aaggccaaga tccgagtcaa gaccagcagc aaggccaagg 780
tgagatctga agagccacag gacaatgact tccctagttg catgtcccgc cgctcgggtc 840
tgccctgcct gatcctggcc tgcctgcctc tccctcctcg gctgggtgat ctgtggctga 900
gctgctccac cctggtgacc gcgcctggcc agcacctcaa gttccagcct ctgacctgg 960
agcagcaca gggcttcatg atggagcccg attggccct gtaccgcgc cgtcccacg 1020
cctgtgagga cagcctacca ccctacaagc tgaagctgga cctgaccaag ctgtaggcct 1080
ccactggccc catcactgcc aactgcaggg ggcccctcgc gcctcacttg ccctgagccc 1140
aggagtccaa gggcaggggt ggtccagcct tgagcccctc caccocccaa tccctcctct 1200
cctcccagtc ccaccccttg cccacaggag tccctggggc gcagtgcgcc agctgggaag 1260
agggcgggat cgggcactgg ttctctcttg tcccgcctt ctggggggtc tgcactttt 1320
tgtctctat tgtgtggtt tctgagtatt tgaacccag tccctgttca ccttctttt 1380
tccttctatg tcccctctct gcgggggggc gctgaggctg agggggagct gctcttgc 1440
agggcctccc ccttctcccc atcccgtct ccagagacc agcttctgag agacaggggt 1500
tgggcactct catgccccta taaagcgtgc ctggggcttg tctggggctg gggaggaata 1560

```

aaccatgtat atg

1573

&lt;210&gt; 21

&lt;211&gt; 1719

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 21

```
ggctgtggga tacgtcatgt gctccttget ctaccactg gtcaccttct tcttgetgtg 60
cctctgcacg gcctactggg ccagcactgc tgtcttctctg tccacttcca acgaagcggg 120
ctataagatc tttgatgaca gcccctgccc atttactgcg aaaacctgca acccagagac 180
cttccccctcc tccaatgagt cccgccaatg ccccaatgcc cgttgccagt tcgcttcta 240
cgggtggtgag tcgggctacc accgggcccct gctgggcctg cagatcttca atgccttcat 300
gttcttctgg ttggccaact tcgtgctggc gctgggccag gtcacgctgg cgggggcctt 360
tgctcctctac tactgggccc tgcgcaagcc ggacgacctg ccggccttcc cgtcttctc 420
tgcttttggc cgggctctca ggtaccacac aggtccctg gcctttggcg cgtcatcct 480
ggccattgtg cagatcatcc gtgtgatact cgagtacctg gatcagcggc tgaaagctgc 540
agagaacaag tttgccaagt gcctcatgac ctgtctcaaa tgctgcttct ggtgcctgga 600
gaagtctatc aaattcctta ataggaatgc ctacatcatg attgccatct acggcaccaa 660
tttctgcacc tcggccagga atgccttctt cctgctcatg agaaacatca tcagagtggc 720
tgtcctggat aaagttaact acttctctct cctgttgggc aaacttctga tcgttggtag 780
tgtggggatc ctggcttctt tcttcttcc caccgctatc aggatcgtgc aggatacagc 840
accacccctc aattattact gggttcctat actgacgggt atcgttggct cctacttgat 900
tgcacacggg ttcttcagcg tctatggcat gtgtgtggac acgctgttcc tctgcttctg 960
tgaggacctg gaaaggaatg acggctctca ggagcgaccc tacttcatgt cgcccgagct 1020
gagagacatc ctgttgaaag ggagtgcgga ggaggggaag cgggcagaag ccgaggagta 1080
gagatggagg acctggagag gaatgacggc tcggccgaga ggccttactt catgtcttcc 1140
accctcaaga aactcttgaa caagaccaac aagaaggcag cggagtctct aaggccccgt 1200
gctccccacc tctcaaggag tctcatgccg cagggtgtct agtagctggg tctgttcccc 1260
cagccccctg ggtcacctg aagtcctatc actgcccctc tggccctccc catgagccag 1320
atcccaccag tttcttggac gtggagagtc tggggcatct ccttcttatg ccaagggggc 1380
cttggagttt tcatggctgc cctccagac tgcagaaaac aagtaaaaaa ccattggggc 1440
ctcttgatgt ctgggatggc acgtggcccg acctccaaa gctccctcat gcttctgtc 1500
ccccgcttac acgacaacgg gccagaccac gggaaggacg gtgtttgtgt ctgaggagc 1560
tgctggccac agtgaacacc cacgtttatt cctgcctgct ccggccagga ctgaaccct 1620
tctccacacc tgaacagttg gctcaagggc caccagaagc atttctttat tattattatt 1680
ttttaacctg gacatgcatt aaagggtcta ttagcttcc 1719
```

&lt;210&gt; 22

&lt;211&gt; 1337

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 22

```
tttttttttt tttttttttt tttttttttt gggtcttaat ttcttttaat taggataacc 60
tttttcttaa agtgaagaca atgcttttat tacatctttt ccttcggaaa agataggctg 120
tattttctag caattacgaa tttgttatat atgacgatct gggtcttggg acgttcttga 180
agctagtgtc tctaaggcag gtgtgtacag caagacgtga ataacacagc aatcgatgat 240
gaaagcatta taagacaatt gagtttgtca gaactacaaa atattgotga gtgtggattg 300
ctctgaaatc tgaaaaacatt acttgtgaat tgcttctatc caaaatgcag acacaatgct 360
gggtattggg ttacttgttt ccgatttttc aacctcttt tccaggcaaa agagggttgt 420
atccaaacga tacagaccca cagagtctaa cagatgtctc tataatcctt ctccctgaac 480
tctcagagga tccagaactg cagccggctg tcgctgggct gttcctgtcc atgtgcctgg 540
tcacgggtgt ggagaacctg ctcatcatcc tggccgtcag ccctgactcc cactccaca 600
ccccatgtac ttcttctctt ccaacctgtc ctgacctgac atcggtttca cctccacacg 660
gtccccaaag tgatttggtg catccagtct cacagcagag tcatctccta tgcaggctgc 720
ctgactcaga tgtctctctt tgccattttt ggaggcaggg aagagagaca tgctcctgag 780
tgtgatggcc tacgaccagt ttgtagccat ctgtcaccct ccatatcggt cagccatctt 840
gaacctcggt ttctgtggct tctagatatt gttgtccttg tttttttttt cttttttttt 900
tttccctcag tcttttagac tctcagctgc acaacttgat tgccttacia atgacctgct 960
tcaaggatgt ggaaattcct aatttcttct gggaaccttc tgtgacacct taccaggaa 1020
catcaacatg tatttccctg ctgcccgtatt tgggtttctt cccatctcgg ggacctttt 1080
ctcttactgt aaaattgttt cctccattct ggggttttca tcatcaggtg ggaagtataa 1140
accttcacca cctgtgggtc tcacctgtca gttgtttgct gattttatgg aacaggcgtt 1200
```

ggaggggtacc tcgggttcaga tgtgtcatct tccccgagaa agcgtgcagt ggcctcagt 1260  
 atgtacacgg tgggcacccc catgctgaac cccttcatct acagcctgag aaacagggat 1320  
 atgaaaagtg tcctgcg 1337

<210> 23

<211> 786

<212> DNA

<213> Homo sapiens

<400> 23

tgtttgactc atgggtttatt agtctggatt acttaagaac aatatgttga ttttaattgtt 60  
 aattcccact aaatatataa tattgataaa tacatgtgaa attaatattg tttggaaaat 120  
 gttagaggaca cagctgggaa ttatgaatgc ttttttctta atagggttgg tgtgtgtggc 180  
 tttgaatggg tctgctgatg catcatggaa agacagcagg gaactgtagc ctgccatcaa 240  
 aactgtatca actcttttaa tgagcatgtg actgtattag gtacattttg aagaatataa 300  
 gtactgatga taaagtctag tatgcataat aggattttgg aggcatttca ggaattttcc 360  
 ttttatagta tgcttttttag gcatctgtat gtgtaatatc atagtatcat ttattgctgg 420  
 gatggatcga aaagcactgc ttttactttt ctgataagta tcaaaatgat tttccagtac 480  
 caacttgact ggctttttaat tattgtcaca cacacacaaa attcaactcc tcaagggttg 540  
 ggaaaattgt gtattttttt gtatacaaga taaaagtgtc ataaaaagga atggatgaat 600  
 tgttgatagg aacattagca gtttaatttt acctgatact gagtttactg taaaaatagga 660  
 aatgcatagg aaggaatacc tcctaaataa tatgccttat agaattgatga aatcttacca 720  
 tagttcatat tgaaaatgtt gtttatttta aagtattgtg gagtggtgaa aataaagata 780  
 cacaat 786

<210> 24

<211> 1679

<212> DNA

<213> Homo sapiens

<400> 24

ggcgccggag gaacctcagc agcagaagca ggagccgctg ggcagcgact ccgaagggtg 60  
 taactgtctg gcttatgatg aagccatcat ggctcagcag gaccgaattc agcaagagat 120  
 tgctgtgcag aacctcttgg tgtcagagcg gctggagctc tcggctctat acaaggagta 180  
 tgctgaagat gacaacatct atcaacagaa gatcaaggac ctccacaaaa agtactcgta 240  
 catccgcaag accaggcctg acggcaactg tttctatcgg gctttcggat tctcccactt 300  
 ggaggcactg ctggatgaca gcaaggagtt gcagcggttc aaggctgtgt ctgccaaag 360  
 caaggaaagac ctggtgtccc agggcttcac tgaattcaca attgaggatt tccacaacac 420  
 gttcatggac ctgattgagc aggtggagaa gcagacctct gtcgcccagc tgctggcctc 480  
 cttcaatgac cagagcacct ccgactacct tgtggtctac ctgcccgtgc tcacctcggg 540  
 ctactgcag cgcgagagca agttcttcga gcacttcac gaggggtggac ggactgtcaa 600  
 ggagttctgc cagcaggagg tggagcccat gtgcaaggag agcgaccaca tccacatcat 660  
 tgcgctggcc caggccctca gcgtgtccat ccagggtggag tacatggacc gcggcgaggg 720  
 cggcaccacc aatccgcaca tcttccctga gggctccgag cccaaggctc accttctcta 780  
 ccggcctgga cactacgata tctctacaa atagggtgg ctccagcccg ctgctgccct 840  
 gctgcccccc tctgccaggc gctagacatg tacagagggt tttctgtggg tgtaaatggt 900  
 cctatttcac ccccttcttc ctgtcacatg accccccccc atgttttatt aaagggggtg 960  
 ctgggtgtga ccgctgtgtg cgtgtccctg ctctgtgccc cgctggctg ctctgtctgc 1020  
 tgccccctcc ccccagggtg gtccccctgc ttttcaccta tctactctg agcttcccc 1080  
 acaggagcag gtttgagggg ccaggcctct tggaggcccc tctgcttcg ttgggttctg 1140  
 cttecttccc ttcttagctg gctcaggggc ttctatggga tcttggaggt tccttaggga 1200  
 cttgcccagg gtcccagggc caccacact tcatctgtc cctcataggc cccacctcca 1260  
 cgtcccggct gggccccaga cccagcttc ctgcccctca ccgggagctc gcatgggttg 1320  
 gagtctggg tggaggggccc tttgtgaggc tgaccggc tcagggcagg tggaggagct 1380  
 gggcctccca cagggtgcc gggcagtgcc atcctggtg gggagggcag cttcaaacy 1440  
 tgtgggtct acagtctca ggtctaggca gggtgccc ttctccacct ccccatccgc 1500  
 cccaggcccc ctgctgtgc ctgcttgca cccctctgc ttgggcccag gtgtctctgc 1560  
 attgctgcc tttttgccct cactctttt ctccccgcc ccctgcacat tcggggtctc 1620  
 agccccagc ctgtgagctc cttgggggca ggccctcaat aaatgtgaac tgctgctac 1679

<210> 25

<211> 2037

<212> DNA

<213> Homo sapiens

&lt;400&gt; 25

```

tatgatggcg gccatggcga cggctcgagt gcggtatgggg cgcggtgcg cccagggcgt 60
ctggcgcatg ccgtggctgc cgggtgtttt gtcgttgccg gcggcgccgg cggcggcagc 120
ggcggagcag caggtcccg cgggtgctgt gtcgagtga cgggacttgt gggctcctgc 180
ggccgacact catgaaggcc acatcaccag cgacttgca cttctacct acttagatcc 240
ggccctggag ctgggtccca ggaatgtgct gctgttcctg caggacaagc tgagcattga 300
ggatttcaca gcatatggcg gtgtgtttgg aaacaagcag gacagcgctt tttctaacct 360
agagaatgcc ctggacctgg cccctcctc actggtgctt cctgcccgcg actggtatgc 420
agtgcagcact ctgacctatt acctgcagga gaagctcggg gccagcccct tgcatgtgga 480
cctggccacc ctgcccggag tgaagctcaa tgccagcctc cctgctctgc tgctcattcg 540
cctgcccctac acagccagct ctggtctgat ggcacccagg gaagtcctca caggcaacga 600
tgaggtcatc gggcaggtcc tgagcacact caagtccgaa gatgtcccat acacagcgcc 660
ctcacagcg gtcgcccctt ccagggtggc ccgtgatgta gccgtggtgg ccggagggct 720
aggtcgccag ctgctacaaa aacagccagt atcactgtg atccatcctc ctgtgagtta 780
caatgacacc gctccccgga tctgttctg ggcacaaaac ttctctgtgg cgtacaagga 840
ccagtgggag gacctgactc cctcactct tggggtgcag gaactcaacc tgactggctc 900
cttctggaat gactcctttg ccaggctctc actgacctat gaacgactct ttggtaccac 960
agtgcattc aagttcattc tggccaaccg cctctacca gtgtctgcc ggactgggtt 1020
taccatggag cgcctcgaag tccacagcaa tggtccgtc gctacttca atgcttccca 1080
ggtcacagg cccagcatct actccttcca ctgcgagtat gtcagcagcc tgagcaagaa 1140
gggtagtctc ctgctggccc gcacgcagcc ctctccctgg cagatgatgc ttcaggactt 1200
ccagatccag gctttcaacg taatggggga gcagttctcc tacgccagcg actgtgccag 1260
cttcttctcc cccggcatct ggatggggct gctcacctcc ctgttcatgc tottcatctt 1320
cacctatggc ctgcacatga tctcagcct caagaccatg gatcgctttg atgaccacaa 1380
gggccccact atttctttga cccagattgt gtgacctgt gccagtgggg ggggtgaggg 1440
tgggacgggt tccgtgttgt tgccttccca cctgcagcg cactggactg aagagcttcc 1500
ctcttctac tgacgcatga actgcaagct cccctcagcc catcttgctc cctcttcagc 1560
ccgctgagga gctttcttgg gctgccccca tctctcccaa caagggtgtac atattctgcg 1620
tagatgctag accaaccagc ttcccagggt tcgtcgctgt gaggcgtaag ggacatgaat 1680
tctagggctc cctttctcct tatttattct tgtggctaca tcatccctgg ctgtggatag 1740
tgcttttgtg tagcaaatgc tccctcctta aggttatagg gctccctgag tttgggagtg 1800
tggaagtact acttaactgt ctgtcctgct tggtgtcgt tatcgtttct tgggtgatgtt 1860
gtgctaacaa taagaagtac acgggtttat ttctgtggcc tgagaaggaa gggacctcca 1920
cgacaggtgg gctgggtgcg atcgccggct gtttggcatg ttcccaccgg gagtgcgggg 1980
caggagcatg ggggtgcttg ttgtttcctt cctaataaaa taaacgcggg tcgccag 2037

```

&lt;210&gt; 26

&lt;211&gt; 681

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 26

```

tttttacaa atgagaagtt acagttcatc tcccctgttc agatgaaacc cttcaaaacc 60
aacaaggcag ctaggatctg gcattccggt ccgtttctgc caagcactcc cgaaccagtc 120
ctctagcgtg aatgatgccg cgcttcagcc tctccatggc actcttgcct cctgcgtacg 180
tgggtctgat ctccctcccc agctcttcaa tgatggccag cagctccggg tatttgcttt 240
ggggcacctg gctgttccca gccgcttttt tttttttttt tttttttttt tttttttttt 300
tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 360
tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 420
tttttttttg ggtaaatgaaa ataagcttta ttacatcaag taataaatac atacaaagat 480
gcaaacagtt ttagtcatct tcttccagat gtttttatca acttacaata aacgcagaac 540
tgagatctac ttacagctct agtatgaaag tgttcggggg tcttggttag gtttgggtgg 600
ttgctctttc ttctgtattt ataactgtg catttttaaa aattgacttt gaagcactaa 660
tagtcatgca aatgcttaag c

```

&lt;210&gt; 27

&lt;211&gt; 1514

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 27

```

tttttttttt tttttttttt ttctgagaag tcaactgggt ttaatggaaa ggtatcctat 60
tagtcttggg ttaagataag gcagtaagag tatcactaat actatgtttt tgcttagaat 120

```

```

gaggetgac cttccactgg cgtcttcacg ggcaattagt tccctctctt ttgctcctag 180
aaacacaggt aggagctgtc tgccccctat tgctgttgca tttctctgagt gtgttgagg 240
ctcatctagt ctcatcacag cagcttcccc agtggggatg gagcgctgta tattgcattg 300
tagcatctct ccaggaagtg cacgggcccc acagaggaaa acacaggcat cttctcttct 360
gactcctctt ctgtttctct tagggacggg gccataaat gattccttca catgatcaat 420
cagaatgcga gacactgttg actaaaacat aaagcaagta gccctgattt cagagaaatg 480
gagttacaaa taacattttc aacagtgcct taacttgcaa gggtagcttt tactgcagaa 540
ggatatcagc tccttttctc tacctatcag aagagaaa'ca aaccatttcc gtcgaactag 600
aaatgcttag ctcttatgag aatattgtgc ttttaaaaaa aattcaaatg ttaacattat 660
ttgcagctct gtgttctaagg tttcaatttg tttttctctt agtccatttg atcattgtct 720
ctggtgagcg atataggaat attaatgttg catagagatc ttcttctagc tccagtcttc 780
ctgtctctcg aactaaaaaa atatctgtgc acaacttcaa aattcgatcc acatttgga 840
gctcttcaaa catgatggag tgagaaatcc cactgaagaa ttcacggaca aatttccaa 900
tcacaaggac aactgaagca tataatccca taataccata gccagccagg aacccagac 960
ttgggggact gactttgtca ttgaagacca ccagttccag ggcctgagag ttcggtattg 1020
atattctgtt tccagtcagg ttgagaaccc accactcact gttatattta gttgtattgt 1080
ctctggacaa aatgatggta atatccatga aattattttc agataaaagt tgctttatag 1140
gttttgagtt agaactcacta ggtgctttca cataatatgg ataaatcttt tctatggtca 1200
ctggtgtttt tgaactttct gtgctgttgc ctgctatcat tttagcgata ttctttcgag 1260
taatatTTTT aagaggaaaa gaaagcttat ctgttgctat ttccgatttt gcacccagac 1320
ttaagtttct ctgaatactc catgaaaaaa caacagagaa gctactattg gggtcaggaa 1380
gttcgtgtat cattttctgc ttactgggtg ggctgatggg ccacaaagaa tttgagtttc 1440
cttccagttc tgctactgtt atgtctctt tttcataatt ttccagaaat tgcatagcac 1500
cggaacctta gaaa 1514

```

&lt;210&gt; 28

&lt;211&gt; 2827

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 28

```

attccgtgta ccagattcta ctgaagaaag gtagccatgg aagagaatat ggaagagggg 60
cagacacaaa aaggggtgtt tgaatgctgt atcaaatgcc tggggggcat tccctatgcc 120
tctctgattg ccaccatcct gctctatgct ggtgttgccc tgttctgtgg ctgcggtcat 180
gaagcgcttt ctggaactgt caacattctg caaacctact ttgagatggc aagaactgct 240
ggagacacac tggatgtttt taccatgatt gacatcttta agtaggtgat ctacggcatc 300
gcagctgcgt tctttgtgta tggcattttg ctgatggtgg aaggtttctt cacaactggg 360
gccatcaaag atctctatgg ggatttcaaa atcaccactt gtggcagatg tgtgagcgct 420
tgggttcatta tgctgacata tcttttcatg ttggcctggc tgggagtcac ggctttcacc 480
tcaactgccag tttacatgta cttcaatctg tggaccatct gccggaacac cacattagtg 540
gagggagcaa atctctgctt ggacctctgt cagtttgga tttgtgacaat tggagaggaa 600
aagaaaattt gtactgtctc tgagaatttc ttgaggatgt gcgaatctac tgagctgaac 660
atgaccttcc acttgtttat tgtggcactt gctggagctg gggcagcagt cattgctatg 720
gttcaactacc ttatggttct gtctgccaac tgggcctatg tgaaagacgc ctgccggatg 780
cagaagtatg aagacatcaa gtcgaaggaa gagcaagagc ttcatgacat ccactctact 840
cgctccaaag agcggctcaa tgcatacaca taaatgcac ttctgttctt ttctaccatt 900
tgaatgcatt ggtgtttaac taagggccat ccaaccatcc aaccttttaa aaacaaaacg 960
aaagtgcctt tcatcaatga tatgtaagg gacttatgaa tcacctgagt acaattcttt 1020
gttgtttagc acttaatttt cccaatttat taaattgatg taaatcagat cttttctaca 1080
agctcctatc cagccttttt tttgaaattt ctcaaactca tttactagtt ctgtaaaatc 1140
aaagatacta acattgtcaa atgcaaagat ttgtttgatt ttttaacca tcccatgtgt 1200
tatacataac accttttgca ttatttctta tgttttgaaa agaaaatagc tttttatact 1260
ttttagtttt gatttcggta actagtttaa ctacaggtaa ccttcaaagg gaccattgta 1320
cattatgaac aatagataga gatgacatct tgatgactct tgaaatatgg aaattttgtc 1380
tgaagatcag tggccatatt actgtaggcc ctggttcatg ttttcatcaa tctaaggtgc 1440
aatttctaaa tttgtaagag taggttttaa aaaaaaagt cttcttatct ttgttaacat 1500
tgtacttttc cttgatgttc ttaaaaggta ttccctcag attactcatg tttatgttgt 1560
gagcatgtag aaacagtaat gctaatgcag ggctagttgc ctttttaaga ttgtgacacc 1620
aggcttacct tttaaagtgt agtatataga gacaatttta atggaaataa ctactgtaga 1680
ctattgaaga atgatctctt tgtgatttaa gaagtggctg gattggaact ttaatatgc 1740
taatgtggaa aattaattac ctttatgaag tggttttatt acaaaataagc acactaacc 1800
ctcggaagtt gttttaccta ctttaaaagt tttaattggat tgcacctctg taaactatc 1860
ctaaaatgtg tatgatatat ttgaaaaggc ttccattaat ataatagctt tgcttgcagc 1920
cttccaatct atgttggttt acctgtagtg ttttataaag tgtggtcaga ggccccata 1980

```

```

gaatgtattg tttgaaagt tagtgatata tttgtgtttt ttttcaagt aagtcatttt 2040
aaccgaatgt tcattcatat tcatttataa aaagtacctg tatcaaagga attttaacaa 2100
agagcaatca gtattattgg accaaatttg gtgtttgttt tcacctgac gctcttcttt 2160
tcattatttc taatgctaca agaagctgt aaagtgtctt ctaaaatgat gtagcctgac 2220
aagacatttt tttcagtgt taaaactagg tagtattgtg cactgatttg accattgtga 2280
aatcctttct cagtgttaact gcattttctaa taaaaattta ttgagtgaac caatctttgt 2340
acaatgacta gtcatgcac atcagtaatt ttacaagttc ttgtagtagg taggggggtac 2400
tactagggat atctgtggca tgattatgca ttccgtagta ttatttaatt aatttggggg 2460
tcattttgct tccttttctt tatgcttaga ttatcttact ggttcaacat ttttctgata 2520
tatgcagtat tacagatatt cagcaaaaagt attaatgggc ttctttaaat tctatattat 2580
agtatttcag ttccgtgtct taacagtttg tgataatttc taaaactgtc ttttcaactt 2640
atgtaatgat gttgacactt ttggctttta tttctggtat tagagtgttg attttcacag 2700
agtgtctttg agcaggcatt acaattaatc tgtttgtac ataatgtgc caacagcttg 2760
atgggtggcg ttttgaaatg tagaacagag tgcttgcaaa atgtaataaa tacacttggt 2820
tactttg 2827

```

&lt;210&gt; 29

&lt;211&gt; 1194

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 29

```

ctttaagttt ggtaaaagag ttggatgcct ttccgaaggt tcctgagagc tatgtagaga 60
cttcagccag tggaggtaca gtttctctaa tagcatttac aactatggct ttattaacca 120
taattggaatt ctacgtatat caagatacat ggatgaagta tgaatacga gtagacaagg 180
atttttctag caaattaaga attaatatag atattactgt tgccatgaag tgtcaatatg 240
ttggagcggg tgtattggat ttagcagaaa caatgggtgc atctgcagat ggtttagttt 300
atgaaccaac agtatttgat ctttcaccac agcagaaaga gtggcagagg atgctgcagc 360
tgattcagag taggctacaa gaagagcatt cacttcaaga tgtgatattt aaaagtgtct 420
ttaaagtagc atcaacagct cttccaccaa gagaagatga ttcatcacag tctccaaatg 480
catgcagaat tcatggccat ctatatgtca ataaagtagc aggggaattt cacataacag 540
tgggcaaggc aattccacat cctcgtggc atgcacattt ggcagcactt gtcaaccatg 600
aatcttcaa ttttctcat agaatagac atttgtcttt tggagagctt gttccagcaa 660
ttattaatcc tttagatgga actgaaaaaa ttgctataga tcacaaccag atgttccaat 720
attttattac agttgtgcca acaaaactac atacatataa aatatcagca gacaccatc 780
agttttctgt gacagaaagg gaacgtatca ttaaccatgc tgcaggcagc catggagtct 840
ctgggatatt tatgaaatat gatctcagtt ctcttatggg gacagttact gaggagcaca 900
tgccattctg cgagtttttt gtaagactct gtggtattgt tggaggaatc ttttcaacaa 960
caggcatgtt acatggaatt ggaaaattta tagttgaaat aatttgctgt cgtttcagac 1020
ttggatccta taaacctgtc aattctgttc cttttgagga tggccacaca gacaaccact 1080
tacctctttt agaaaataat acacattaac acctccgat tgaaggagaa aaactttttg 1140
cctgagacat aaaacctttt ttttaataata aaatattgtg caatatattc aaag 1194

```

&lt;210&gt; 30

&lt;211&gt; 2579

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 30

```

gccgcttttt tttttttttt tttttttttt tttttgaaa gataaatatt atttatacca 60
gccaccgcc tcacagccga caccctcacc ttctagtgc ccccaaagcc ctgccctggc 120
tgtccagtc ctctggacat gggcaggtca gtgggggctg cggccgggtc acacctggag 180
tgtaagcagc acgttgctcc aagagccact tgggcagggg tcttctcctg gcttgcttag 240
ctagtgttcc tgcccagag gccatccagg gctacaagct ctgcccaga ggctgggact 300
gggacacccc tggctcttgc tcacaggcca ctctgcccc tccagcccc atcttctcac 360
aaaagaggaa aaggagcagg aggtgactgg tatggggtgg ttaagttagg ggaagctggc 420
ctggcctgca gggactaaa tgttcagggt gaaggcagca aggcagggca ttgctgggtg 480
cagtgcacca gtgccagtaa ggttctggag gcctgggggg gtgactctag tgctgtggc 540
gcaagtctga tgatgacacc tgacttctgt ctccagggtt cctgagttag ggccttggg 600
tcccagtggt gtcggaaggc atcaccgagg tccagaggcg tcatcgtggg gagttagagg 660
ctgtccagag ttgcccagga tgcccaggg cagcaaatgg cctccccacg gttgcccagg 720
gcagccccag ggcccagtg gctggccttc ttgtgctctg ggagaagaca gccttggagg 780
gacatgcgtg ctgctgtagg tgtccagcgc ccatttcaa ttcattccca tgtcccttct 840
ccaggaggga ttgggcaggg aagccagagg ccctggggcc ggcccagtc ttaggtgac 900

```

```

tttccactca ttagctagag tcttgcacgg ctgcaggggg agagcggccc cccagggctg 960
tcagtgccag ctgtcctcgg gggagtgggc atgagacctt acaggtcacc tccacaggca 1020
gggtggctag ggagcctggc cgtcatcccc ccagccacag ctctttgggg gctgtccat 1080
gacctgccag ctcagactgc tgtggactgc ttgatgtgt gaaagctgac acgggttggg 1140
gaggtgggga tggacatggc acgggccact cgggcacgga tcgagtgcct gtccctgccac 1200
cggtgccacc tcttcggat ggcagaaagg acctcactat tgaggaaaca gtagaacaca 1260
gacacaaaga agccctggaa ggattccagg aaggagtga agtagatgaa gacgaccgg 1320
gagacctcat cctccccggg attgacgaag aacagcatgt aggtgatgcc caggaggggc 1380
agcagcacca gagtggcttt cacagccttc ctgtactgaa tggctctaga cgtggtggat 1440
gcccggagct tggatcatgag gatgcggacg atgttgaaaa ggaagatgaa attgatcagc 1500
aggaccagga tcatggggcc ctggtagatg tagtcgggtg acaccccagg ccttttgcca 1560
aaccagcact tctcattgtc gtagtacagc ttcccaatgg cccaggccac aatgatgggg 1620
aagggcacac cccagccaat gcagatgaac atccatttgc gcagccggtc agtggagtag 1680
gtgagcacga tggctgtgtg caggtagcag ccctcgccga acatccagaa gaagtgggtc 1740
acatgggaagt agttgtaggc ggctgtcacc aacctgcacc agcccacgtt gctctggtgg 1800
acctcggggc tcatggttag ctggaccacg aaccaggtgg cgttgccag gatgaaggcg 1860
gagatgaggt tccagtggat gatgtttcgc aggcaccgga tgcctcctgag ccgcagaaag 1920
aggacaaagg ccaccaggag ggccaccagg gagatacagt ggcccaggta gttgatgatg 1980
actgcgacat gtagtgacac cttgcttttt ttctcctcat tgaggatctc ctggcactcg 2040
gagtaattca cgcggggcgc ccagctgcca ttggccaggc actcccggtg gccattgttt 2100
gtggtattgt agcggacacc atagaaaaag gcagggcagg gccgaaccac tagctgcccc 2160
gcagggctgc ggggccagca ggtgccaatg aggtccacgg atgogttgca ctgcagtcct 2220
gagatgtttg tggccaggga caggctctcg cagtgtggt cctggaggga ggccagagacg 2280
gggttcagcc ccagaaggag aaggcccttg acgagacgga gctgcgggtg cctcccatc 2340
ctcgggctcg ctcggtacc gtcctgaatg cccgggtcct acggacatcc cagaggaaac 2400
ggcggggcgc tgcgggctcg ggccggcacgg ggtgggcggc cgggctcctc ggtcgctgcc 2460
tggtagggag atgcccggct cggcgcttcc cggcccgccg gcccgggccc 2520
gctctcgtc ccccttccc ggggaagtct ggccgcggt tcccgacgca gcccgggccc 2579

```

&lt;210&gt; 31

&lt;211&gt; 1345

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 31

```

tttttttttt tttttttttt tttttttcaa acagtctgat ttaattagga agttaataaa 60
gttgaggtgg ggtggagtgg gatcatcaga aggctgacat gggaccgctg gagttggcaa 120
tcatagcagt gtgaggttgg caagggggagc aacccccctt aagacaaggc acaaactatt 180
tggcaaggag agatgagggg tgggacctca ctgtcaatgg acatgctcag ggaggccagt 240
gggttacatg caacaggagg atcattcagg caacttcagc tatgaggctg ggcatctgtg 300
agggctgaag gctcaggctg ttctcaaagg cttgtgattc acctgggaga tgctcacgcc 360
tgtgagtcct tccacactct ctggcaggcg agttagaatg tccagtactt cccagtcac 420
tttggtgcc cccatggctc cactgocgct ggacaccagt gtgatcttat tggctgaagt 480
caagggacca ctgatctcct ctgccacctg gggcagcttc tctagcagca tgtccagctg 540
agcagcctct tggtagagct ggaaggcttc tgccctcttg gccatctgct cagcctcggc 600
tcgggctcgg gcccctatgg caaaggcctc agcttcccca cgcatccgca cagacggcg 660
ttctgctccc gctgcatata ttagttggga cttctctgcc tcggctaggc gctccagctt 720
gtagcgtccc gcttccgctg gcttccgcac ccgggctccc agctccttct cccgcccggc 780
gatctcctgc tctgcaactg ccacctgctg ggcccgcctc accacctgca cctgcaccgg 840
ctgctcctca atctgctgct tagtcttggc cacctgaagc tgataggcca ggtcagcctg 900
tgctcggcgg gtgttgacct cgatgtcata ggccgcttc ttcagttcgt aatctctctg 960
tgccctggcc atctcgatct cactcaggta ctgagcagac accttttctt gcttggcttt 1020
agcttcccgg atcccagcat ctctcttggc ctctgcttct ccaatccgtg catctttttg 1080
gacttgagct gttcgagcct tccccaaaga gtgcaaatag tctgggtcat cgtgaatgtc 1140
cttcagagtg tagctaaaca cactgatgcc catgttgacc aggtctgagg agggcacttt 1200
gaaaacctgt tctgagaatt tctgcctgtc cttatagatc tctccacag tcatgtgggc 1260
catgatggcc ctctggtggc cctctaactg ctccagggca atgtgggcaa tctcagcctc 1320
cgtcttcccc aggaacatct gacag

```

&lt;210&gt; 32

&lt;211&gt; 2085

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 32

```

agtaaagaag agaatcgtgg ggaataagaa cttccacgag gtgatgctgg ctctcacagt 60
cttagaaaacc tgtgtcaaga actgcgggca ccgcttccac gtgctggtgg ccagccaggga 120
cttcgtggag agtgtgctgg tgaggacccat cctgcccag aacaaccac ccaccatcgt 180
gcatgacaaa gtgtcaacc tcatccagtc ctgggctgac gcggtccgca gctcgccga 240
tctgacaggt gtggtcacca tctatgagga cctgcggagg aaaggcctgg agttcccat 300
gactgacctg gacatgctgt caccatcca cacacccag aggaccgtgt tcaactcaga 360
gacacaatca ggacaggatt ctgtgggcac tgactccagc cagcaaggag actctggcca 420
gcatgctgcc cctctgccc cccgcccac actctccgtg gacacgcccc tagcaccacc 480
ccggaacaga ttgggaagct gcgcagatga gctggagatg gtgagtggga acgtgagggt 540
gatgtcggag atgctgacgg agctggtgcc caccaggcc gagcccgtag acctggagct 600
gctgcaggag ctcaaccgca cgtgccgagc catgcagcag cgggtcctgg agctcatccc 660
tcagatcgcc aatgagcagc tgacagagga gctgctcatc gtcaatgaca atctcaacaa 720
tgtgttccct gcacctgaac gggttgaacg gttccgaaca ggccagacca ccaaggcccc 780
aagtggaggc gagccggcag ctgacctgat cgacatgggc cctgaccag cagccaccgg 840
caacctctca tcccagctgg caggaatgaa cctgggctcc agcagtgtga gagctggcct 900
gcagtctctg gaggcctctg gtccgactgga agatgagttt gacatgtttg cgtgacacg 960
gggcagctca ctggctgacc aacggaaaga ggtaaaatac gaagccccc aagcaacaga 1020
cggcctggct ggagccctgg acgcccggca gcagagcact ggcgcgatcc cagtcaacca 1080
ggcctgcctc atggaggaca tcgagcagtg gctgtccact gacgtgggga atgatgcgga 1140
agagcctaag ggggtcacca gcgaagaatt tgacaaattc ctggaagaac gggccaaagc 1200
cgcggaacca ttgcccaccc tctccagccc ctcagctgag ggccccccgg gtccccatc 1260
tgccccagcg ccccggaaga agaccagga gaaagatgat gacatgctgt ttgccttatg 1320
agtgtggggt ctggcaccct gcagcccagg tccccactgc tctcacacc ttaggctggg 1380
acctccctcc ctccctctgt gttaaggctg ctttgggggt ggcttgttac ccccttttcc 1440
tctcttttga agacggagct gcccagctg tggtggggg tgtggaggca gtgggatgaa 1500
ctgggggaga ggtctgcgt gcagtgggat ctggtgctc tgcctcctt cccaccacag 1560
ctgacctaga gactttgctg agaagtggag gcccaggac aggtggctg gctggctggc 1620
tgcttgaccc agtgtgactc tcttctactg agtgataccc tgctccgggc ccatgcccc 1680
aggagccctt cagagcccac actgccagtc gaggcctggc tggaggctgg ccacagtggg 1740
aattctgccg agcctcttgt cccttccctg ctctgctgca tggggcccca tggctttggc 1800
tggccactga gggtaggggt tggagggtgt gaggccccc gaggagctgc ggcggcccag 1860
gtacgaagct gcaactctgc gcgcagtgg cgagatctca tcagcccag gctgcagggt 1920
aggcttcagg ggatgctggg gcccactgc cctccgctg ccttgccctc catccttct 1980
ctgttcttcc tggccgggca ccacagcact ggggctcacc tcttggttga tctcttcta 2040
ctgggagagg tgcttttgt atcccaatt aaaggtagaa aaccc 2085

```

&lt;210&gt; 33

&lt;211&gt; 2300

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 33

```

cggaaagcct tctgtctct gctgctcttg gggctggtgc agctgctggc cgtggcgggt 60
gccgagggcc cggacgagga ttcttctaac agagaaatg ccattgagga tgaagaggag 120
gaggaggagg aagatgatga tgaggaaaga gacacttgg aagttaggga agaaaaagg 180
gtcttggctc taaatgatgc aaactttgat aattttgtgg ctgacaaaga cacagtgtct 240
ctggagtttt atgctccatg gtgtggacat tgcaagcagt ttgctccgga atatgaaaa 300
attgccaaca tattaaagga taaagatcct cccattctctg ttgccaagat cgatgcaacc 360
tcagcgtctg tgctggccag caggtttgat gtgagtggct accccaccat caagatcctt 420
aagaaggggc aggtctgtaga ctacgagggc tccagaaccc aggaagaaat tgttgccag 480
gtcagagaag tctccagcc cgactggacg cctccaccag aagtcacgct tgtgttgacc 540
aaagagaact ttgatgaagt tgtgaatgat gcagatatca ttctgggtgga gttttatgcc 600
ccatggtgtg gacactgcaa gaaacttgcc cccagtatg agaaggccgc caaggagctc 660
agcaagcggt tctctccaat tcccctggca aaggctcgac ccaccgcaga aacagacctg 720
gccaagaggt ttgatgtctc tggctatccc accctgaaaa tttccgcaa aggaaggcct 780
tatgactaca acggcccacg agaaaaatat ggaatcgttg attacatgat cgagcagtc 840
gggcctccct ccaaggagat tctgaccctg aagcaggctc aggagttcct gaaggatgga 900
gacgatgtca tcatcatcgg ggtctttaag ggggagagt acccagccta ccagcaatac 960
caggatgccg ctaacaacct gagagaagat tacaaattc accacacttt cagcacagaa 1020
atagcaaagt tcttgaaagt ctcccagggg cagttgggtg taatgcagcc tgagaaattc 1080
cagtcceaag tctagcccc gagccacatg atggacgtcc agggctccac ccaggactcg 1140
gccatcaagg acttcgtgct gaagtacgcc ctgcccctgg ttggccaccg caagggtgca 1200
aacgatgcta agcgtacac caggcgcgcc ctgggtggtc tctactacag tgtggacttc 1260

```



```

agctttgatt acagagctgc aactcagttt tggcggagca aagtcctaga ggtggccaag 1320
gacttcctctg agtacacctt tgccattgcg gacgaagagg actatgctgg ggaggtgaag 1380
gacctggggc ttagcgagag tggggaggat gtcaatgccg ccctcctgga cgagagtggg 1440
aagaagttcg ccatggagcc agaggagttt gactctgaca ccctccgca gtttgtcact 1500
gctttcaaaa aaggaaaact gaagccagtc atcaaatccc agccagtgcc caagaacaac 1560
aagggacccg tcaaggtcgt ggtgggaaag acctttgact ccattgtgat ggacccaag 1620
aaggacgtcc tcatcgagtt ctacgcgcca tgggtcgggc actgcaagca gctagagccc 1680
gtgtacaaca gcctggccaa gaagtacaag ggccaaaagg gcctggtcac cgccaagatg 1740
gacgccactg ccaacgacgt ccccgagcag cgctataagg tggagggcct cccaccatc 1800
tacttcgccc ccagtgggga caaaaagaac ccagttaaat ttgaggggtg agacagagat 1860
ctggagcatt tgagcaagtt tatagaagaa catgccacaa aactgagcag gaccaaggaa 1920
gagctttgaa ggctgaggt ctgcggaagg tgggaggagg cagacgccct gcgtggccca 1980
tggtcggggc gtccacgccc aggcgggcaa caaacgacag tatctcgat tctttttttt 2040
tttttttttt taatttttta tactttggtg tttcacttca tgctctgaat actgaataac 2100
catgaatgac tgaatagttt agtccagatt tttacagagg atacatctat ttttatcatt 2160
atgtgggggt tgaaaaattt ttttttacac cttctaattt ctttatttct caaagcagat 2220
aattcttctg tgtgaaaatg ttttcttttt ttaatttaag gtttaaaatt ccttttccaa 2280
atcaaaaaaa attccccccc 2300

```

&lt;210&gt; 34

&lt;211&gt; 1468

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 34

```

agttttttca atccctgttt ttgaataaat attctcagcg accaggaagt tgtgaaatac 60
tgggtgtgtg ggcagcaaaa cctccagaaa atgggtgcag ctgaggtcct ggaggacccc 120
catgtgtgaa tccaccaacc tcaattaggg ctcagcccct tccacatgcc agttctgggg 180
cttcaggacc ctttgggggt gaagtcgtcc agcctcctac ttctaatacc aaactgggtc 240
agttgtcttc tgggcatttt agaagcaggt ggaggagttt cagtagcttt gtccagactc 300
tccttggtgc agatgtcagg gaagtccttc tgagtgtctc tccagtgggt cttcctgctg 360
tggctgtaac ccagatactg ccctgcttgg cggatcactt tggttgtgag cccttagggc 420
cctcttcttt gtgacacctg cccatcttgg cctggggacc acctgtgagt ttcacaaaac 480
acctatgctg gaggggccc ttagagatgct gcagggtgca gatgggaaag ctgaggccta 540
aggaagggtc ggcctatgca cagtgtctat cagtgttggg ccagaccgc aggattcctg 600
gctctcagaa gtccgtgggc ctaccaggc agcagacacc ctttctcctc ctgttccaga 660
cccagatata cagcagggca cctgctgtga cctgtgcagg ggttggatga gccccacgg 720
aaaccacccct ctttctcct gctcaggaga gagaactctc aggtggcccc tggtagcgg 780
ggctccgccc tctgccaac tgggggtct gtcttgaggc ctcaaggagg cctacggcag 840
ggccctctgg ggtctcttgg aggcattgca agagtgcctg cgggtgccag gcttgcggag 900
tgtagggccc caccaggtcca ggcagtgcac ggcgagagag ggcggccagt gccagcgca 960
cggggcgctg cagcagcccc tacaggaagg ggtgagccgc gaaggccgag taggcgaccc 1020
aggtgacagc cgcttcggct tccgcggccc gcgctgcggg cgccaggcac gcgcagccat 1080
aaggcagcca gcaggctgca aattggccca cggccagcgc tggggccagg gccgccttgc 1140
ccccggggcag ggcaggcccg agcggcgcca agatgaaagc ggctatccag agagtccgag 1200
cggagtccgg acccgcgccg cggcctgagg ggcctcaggg cagcgcgacg gccaccacg 1260
aagatgcgcg cgtaggcgcc gagcagcagg agggcgggca gcgcgaaggc cagcagggcc 1320
cagagcgggc ggaaggggcc gagggcccca gccaggaccg agcagcgagc agggagcagg 1380
ggcggtgccc gcggcgggcc gagcagggag agcgcgcccc agcagttccc gcccggggcc 1440
cacacggcgg tgagcacgag cacaggcg 1468

```

&lt;210&gt; 35

&lt;211&gt; 4736

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 35

```

tttttgggca ttaagagttc tttattttac cagaagggaac aggcagtggg gcagtgcac 60
atccaagccc cagaccagac atgcagcctc cacatgcagg aagagctaca caggctgggg 120
caggggcagg gtggggagct gggaccactg gacattcaca gcacctctgc caagacgctt 180
gggtcctggg ctcttctgcc tccattggag caaggagaca gaggattggg ttgcttcccc 240
atggctggaa ccccatcact ctggccaggga agaaagatgg cacaagggtc ctgggggtctg 300
ggcaggctac agcactcgat tctgtacagg gttggcacag ccttgtccac cagaaggggc 360
caacacccag gacagtgcag ccctagcagg aagaaggtct acacactttt ctgtccccaa 420

```

cagggctaga ccctcatctc agaaaactta gcagagtttg gaccaaaccg caccgcccc 480  
 gcaggaacat gcccatgaag aggccttccc tgagcacaag caggggcctc ctaaggcagt 540  
 aggaaactga ggaagctgct gtagacagga ggccttgccct ctgtgccctt ggggtcaggg 600  
 agaaaggaca gggatagagc gctggctggg gccttgggtg gatgagggga aggacagtgt 660  
 ctctggggccc tgcaggtcct ggctgcccag acctagaggg gcagcagcag gtgaggctgt 720  
 gggcttccctg gggcaggggt tagggctggg aagaccagtc caggagaaaag gacagtgaac 780  
 gtccctacca gaacccctgc ccatgctgag ctctggccag ggcctatagg aggatggaca 840  
 gatgcacaga gaacttcaag gcaccaggat tctgaggagc agcagggcca cccccacag 900  
 agagtgattg taataaacat cttcagctta atctacatga tgtgcattgg ggaagaaaa 960  
 agacagacaa aggaaaagac acgcaggag atgagacaca aacctgatga aagtggcagt 1020  
 gaaagtgggg taaaggagag gaagaggagg aggtggacag acaggagaga caggaagaca 1080  
 gccagagatg gccgaacac gcagcacttc tggctccctc gagataaggc accagagtca 1140  
 gtaacgttcc cgttgttctg tgggattaaa acgggtgctg gagggagggc cgggtggctg 1200  
 ctgaagagag tgggcctgta ggagcctcac acctgcacac cagtggcctt cttgatcagg 1260  
 ggtatcttag acaggtccac gcctgtgagg gcatgcacag aggcaggcag ctcggccagc 1320  
 agtcggttca cttctgatgt gacctactg ttgtctccac tgaggaccac aatctcatcg 1380  
 accttggtta gtggggcagc gattttggca gcaatctggg gcagggcctc tagcaccag 1440  
 gccatcttgg ctgcatcccc gtatttctgg taggcttctg ccttgagctt catccgctca 1500  
 gcctctgcct ctgccatgcc ctgatgact gccgcttcg cctccccgat tttgcggtac 1560  
 ttctcagcct ctgctgtgac caagaggacc tgcctcacct tttcacctc ggcaatctgc 1620  
 tggatgcggt gggcctcgcc ctccgcaggc cggcgactg tagcgatgag ctccttgtcc 1680  
 gtacgcagga tctctgtgac ctccacggca atctgtttct tgcgtgcac aacctcaatc 1740  
 tcaatctctt cctgcccgat cttctgctgt tcacgggccc cctgcagctc ataggccaac 1800  
 tgggcctcag ctgtcttgat gtttaacctc tcaactgaag ctgacttttg cagctcgaag 1860  
 gctcgcttag agtcagcaat cttggtgtct gccatgaact tcacatccag catctccttc 1920  
 ttgcactcag cttcccggat gcctgcgtcc cgttcagcct cggccacgcc aatgtcagca 1980  
 tctctctgca ccacggcagt ctgcgtcttg cccaggagc tcagatagtc cactttgtca 2040  
 tacacgtcct tgatggtgaa gctgaggatc tcaatgccc tgccggccaac atcaggggct 2100  
 gccacctccc gcaccagctt ggcaaaactg tcccggctct gataaatctg ctccactgtc 2160  
 agggctcccg ggatggagcg cagatgtccc tccagggtct gcaggacgac gtttttgatg 2220  
 tcttcgacat tcttaccag aaactgctca caagccacgg ccaggagtct cttctccgtc 2280  
 atgatcttca cctctgagtg tcggagatag accaccaggc ccaggcccag ccgccaaca 2340  
 cgtactgttt atagtcggaa ccacaacagc cctaggcctc tttggccgaa ttcggccaaa 2400  
 gaggcctatt tttttttttt tttttttttt ttttttagat gctcgcttgt aaagtatt 2460  
 gacaactgtt tgggtcccaac acacaaaaca gcacttgaac cacaacaaa gtgttcaaac 2520  
 aaagtagaca actaagaaaa acatctcttt ccccaaac caatccaaa caaacagtgc 2580  
 aagatgggaa aggggggttt ggtgataact tttgtcattt ttttaaacag ataaatttaa 2640  
 tccggtatat ctttccacc agaaataaag aattacattg tcttaatgct caaacatcat 2700  
 tttaccacat catttaatta agcctctgga taaaaaata gatagcaatt ggactggcca 2760  
 ttgtggagta cattatgaac acaatgtgct tccgaagtct tctctctcat tttcagacag 2820  
 caattgttaa gattcacaca cagctcccag acctagcag caactccagt gaatggtact 2880  
 cagacacact caggggacag cacagaactt gattctctt tgtctgttgc ccaaagaacc 2940  
 tgttctttga gtctgttcca ggtgacttgt aatgatacct cttacgggtt taaagtccac 3000  
 cactctttac atgctagcag aactgaagtc caagcgtgca aactcagcct tatgaaatct 3060  
 tagaataagg caactgatgt tctcaacacc aattattatt actttgttta aaagctcctt 3120  
 taataaaaaat tgcacatttg catttcactt cctgtaacac tatgtctgta gaggaaatgc 3180  
 cttcaggagg attcggagag tgccataata cttacagggt tttttccatg gtgttctgtc 3240  
 ttgactgggg ccactgtgtg agaactggga gtcactggct tcatttaaaa gatttgggga 3300  
 acaaaaaatc tgacttgtaa aaatctctct atagccctta ttttgtggca ttttatcaaa 3360  
 atgctatgaa atcagagtc attttctggc tttctagaag ttaccaata taaacatttc 3420  
 ccaaaaagaa accatctaac tagtggaga ccttacgcca acaggttctt tctgctctat 3480  
 gaatgaatcc gccttttttg ccggacaaat acaatccatt gtaaatgtca ggtttctcta 3540  
 gaggggggtg agaggccacc cgtcagcgga cacctcaggc acctagagag gaaggccatt 3600  
 ccacaccaga cgccacaaga aaccacagaga tgcctccaac agcgagaagt aacaagagta 3660  
 aaatcagaca cgattaaaag atgctgagct gacatacaca cacataaagc tccccagcta 3720  
 ccgataccag ctttaaaatt acaataacaa ggttaagtgg atcaaccttg gccttccat 3780  
 gtgtaggtag aattcctgtc tcttccaggt ggaaatcgta ttgatccgc tgcgtctgaa 3840  
 gcacctcccc actcagctct gatttgaat ttatgcact gatgcatt ttagaaaaatc 3900  
 aggtctttc caatgctgct tctcgacaca caataatgtg tgttgaatc caaatgctga 3960  
 ctttaaatcc atgacatcga gaccatctcc ttttccctaa cctaaccat atcaaacctg 4020  
 aacacagaag ggaagcttca aacatcctca actttctaga aagctcctaa atggaacccc 4080  
 aaagtagaaa cgtttaaaaa aatttgtgat gaagccact ttgtcaacta cagacatagt 4140  
 ttaataaaaa aacaaggcac acttacaagt cacatggaag ccaggaaact tcacattcca 4200  
 acctgaaaat acactccgaa cccctcgct acccttctcc tttggtgtgt gaacacacag 4260

```

gctagcggga caggctttgc ttaaaagaca tgccacgcac tgggttaata ctgtcggaaa 4320
caccagtaag caaaggctga gagactctat tatgctacat gtaggatgac accaccgacg 4380
tggctcaatg gaagcaaaac cgcttcctgc tagttgagtt tttagtgett tcttcttttg 4440
gaacaccatt gtatttcata atagttacta aaaatttggg aaaatatatt aaggattcct 4500
taacaaatgc cacaagttct tcaataaatt gaaaaagaa agaaaaagga agaagaaaag 4560
aaagaattca gctcaaagct gtgttcaatg gaaaagaaaa acatgataga ccacaggtaa 4620
gatgaagtca atggcttcgg ggggttttca tgacacagaa aaggatgtat ttttgaaacc 4680
cncctttgtg tncagaatca gacagtgttt tcccatcctn nttctatatt ccaaat 4736

```

&lt;210&gt; 36

&lt;211&gt; 2740

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 36

```

tgcccaagag caagggcaac cgggcggctt acggcatcac cgtcaccaac caccatga 60
ataagaccag cgccagcctc tccctggatt acctgctgca gggcacggat gtcgtcatcg 120
ccatcttcat catcgtggcc atgtccttcg tgccggccag ctctggtgtc ttcctcgtgg 180
ccgagaagtc caccaaggcc aagcatctgc agtttgtcag cggtgcaac cccatcatct 240
actggctggc gaactacgtg tgggacatgc tcaactacct ggtccccgct acctgctgtg 300
tcatcatcct gtttgtgttc gacctgcccg cctacacgtc gccaccaac ttcctcgtcg 360
tcctctccct ctctcgtctc tatgggtggt ccatcacgcc catcatgtac cgggectcct 420
tctggttcga ggtccccagc tccgcctacg tgttctcat tgtcatcaat ctcttcacg 480
gcatcacgcg caccgtggcc accttccctg tacagctott cgagcacgac aaggacctga 540
aggttgtcaa cagttacctg aaaagctgct tcctcathtt ccccaactac aacctgggcc 600
acgggctcat ggagatggcc tacaacgagt acatcaacga gtactacgcc aagattggcc 660
agtttgacaa gatgaagtcc cgttccaggt gggacattgt caccgcgga ctggtggcca 720
tggcgggtga ggcgtcgtg ggttccctcc tgaccatcat gtccagtag aacttctgct 780
ggcggccaca gcgcatgcct gtgtctacca agcctgtgga ggatgatgtg gacgtggcca 840
gtgagcggca gcgagtgtc cggggagacg ccgacaatga catggtcaag attgagaacc 900
tgaccaaggt ctacaagtcc cgggaagattg gccgtatcct ggcgttgac cgcctgtgcc 960
tgggtgtgct tcctggcgag tgcttcgggc tccctggcgt caacggtgct ggcaagacca 1020
gcaccttcaa gatgctgacc ggcgacgaga gcacgacggg gggcgaggcc ttcgtcaatg 1080
gacacagcgt ctgaaggag ctgctccagg tgcagcagag cctcggctac tgcccgagct 1140
gtgacgcgtt gttcgacgag ctacacggcc gggagcact gcagctgtac acgcggtgct 1200
gtgggatctc ctggaaggac gaggcccggg tgggtgaagt ggctctggag aagctggagc 1260
tgaccaagta cgcagacaag ccggttgcca cctacagcgg cggcaacaag cggagactct 1320
ccacggccat cgcctcatt gggtaaccag ccttcatctt cctggacgag cccaccacag 1380
gcatggaccc caaggcccgg cgcttccctc ggaacctcat cctcgacctc atcaagacag 1440
ggcgttcagt ggtgctgaca tcacacagca tggaggagt cgaggcgctg tgcacgggc 1500
tggccatcat ggtgaacggt cgcctgcggt gcctgggcag catccagcac ctgaagaacc 1560
ggtttgagga tggctacatg atcacggtgc ggaccaagag cagccagagt gtgaaggacg 1620
tgggtgcggt cttaaccgc aacttcccgg aagccatgct caaggagcgg caccacacaa 1680
aggtgcagta ccagctcaag tcggagcaca tctcgtggc ccaggtgttc agcaagatgg 1740
agcaggtgtc tggcgtgctg ggcacgagg actactcggc cagccagacc aactggaca 1800
atgtgttcgt gaactttgcc aagaagcaga gtgacaacct ggagcagcag gagcggagc 1860
cgccatccgc actgcagtcc cctctcggct gcttgcctcag cctgctccgg ccccggtctg 1920
ccccacgga gctccgggca cttgtggcag acgagcccga ggacctggac acggaggacg 1980
agggcctcat cagcttcgag gaggagcggg cccagctgtc cttcaacacg gacacgctct 2040
gctgaccacc cagagctggg ccagggagga cagctccac tgaccacca gagctgggct 2100
agggactcaa caatggggac agaagtcccc cagtgcctgc cagggcctgg agtggaggtt 2160
caggaccaag gggcttctgg tccctccagg cctgtactcg gccatgccct gcggtcactg 2220
cggttgcgc ccctaattgt gccaaaggtt gaccggcccc gggctgogta caccctgct 2280
ctgctttgcc ttaaagcctc ggggtctgccc cggccctcg cccatgctcg gcactgctca 2340
ccgcccagg cgacgcgggc tggaccaggc actgctggcc tttctcctgc ccggcctcgg 2400
aaccagcttt tctctcttac gatgaaggct gatgccgaga gggggctgtg ggcggagctg 2460
ggtcagtccc gtatttattt tgctttgaga agaggctcct ctggccctgc tctcctgcag 2520
ggaggtggct gtcccgggg aagccatcag cttgggcccag ctggcagggt gcaggaatgg 2580
agaagctgac cctgctggcc aggcaagggg ccagaccccc cccaaccccc agctgccatc 2640
gctctcccac ccagcttggc cccctgcccc cccacctccc tgggagccgg gcctgtacat 2700
agcgcacaga tgtttgtttt aaataaataa acaaaatgtc 2740

```

&lt;210&gt; 37

&lt;211&gt; 1928

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 37

```

agcatgcctg gctgagagct tgaacacagag ttctgcagaa aaactgtaaa gatccccgaga 60
catttccctg actccttgaga tactgactgg aagatagact gttttgttcc acctgattgt 120
atgggagaaa tttttgacct tagaaagtgg aaatgagggt gctatggaaa ctggtaattc 180
tgctgccact cataaactct tctgcagggt atgggtcttt aagccgtcct atttttactc 240
aggagccaca tgatgtcatt ttctctttgg atttatcaaa atctgagggtc atcctgaatt 300
gtgctgctaa cggttaccct tgcctcatt ataggtggaa gcaaaatggc acagacattg 360
attttactat gagttatcac tacagggttg atggaggcag tcttgcaatc aatagccccc 420
acacagatca agatattggc atgtaccagt gcctggccac caatcttctg gggacaattc 480
tgagtcgga ggcacagctc caatttgc atattgaaga ctttgaaact aaaacaagaa 540
gcacagtatc tgtccgagaa ggtcaagggt tgggtgctct ctgtggccca ccgccacatt 600
ttggaggtat gatggggtga tttgggtcat atcatcaatg cggtcacttg gagagtgatg 660
tgagcacatc aggtcttagg ctcaatgatc accttttacc aaatcaaaga aattgtgact 720
ctcgtcaagt gcatctactg catacaaata gttctatata taaacatttt cttttaaaaa 780
tattcgttca agcagccaca cagcaaatat gtttttaagg agatacatca gggcattgta 840
cgtagtgtga gtgccagggc ttttttagaga aactgaccgc agctgtaatt cgggtgctgtg 900
acaggcaaac ttcatgacaa ggggacaatt tatttaccac actttgaggc ttggttttct 960
catctataaa atagagacat taactgtttg tttgtttgtt tgttcagttt tgttgtaaat 1020
gttaaatgag ctaataaatg taaattgagt agtgaataaa ctaatacttt agtaagtaaa 1080
gaaagttaag attgttacta cgtttttatt tttgggtctc atggagaagc aaattccaac 1140
taacactcct cttggcaatg tcacattaat tactggaagg gatagatcac cattaactgg 1200
aagcaaattc tgtatagcac caaatcagga tgtctcctgg caatggtaaa aatcaagcaa 1260
taaattgccag cctctacttt ggaagactct ggcttgggtc gtggactggc ccgttgcag 1320
ggatccaaac tacttactga ttctcatcct cttgggaatg gattttctca aatttcacat 1380
gatgtgttaa atttagtcgt gattctcaac tcacagtga cctgaaggag gcagtgtgaa 1440
aacatccatg gagtcatttg gtacaaacca atatcacact aactatatta tagaaagctt 1500
aataacagca aggacttaca cagcacagac ccaaggactt taacatgtat tagattctta 1560
aattttcaca aaaacttata agagatatat gagtataatt attgttttac aggcctcagta 1620
cactatagag aaatagaaag atgttaatta actgggtcaa ggtcacgcag ctggcaggca 1680
atgaagccaa tattcaaatc caggaagtct ggttccaga ccctcagctc ttaactatca 1740
ctgcagttgt tataattgat ttccactctg gaatgggaga acttttaaaa tacaaggac 1800
agatgtttta aaataaaatt taagcaatct acttttaatg ttaaaccaaa tcttatttat 1860
gagccttgag aaacttgaaa gcgtttttcc attattattt ttacacaacc tcatgaattg 1920
ccatgacc 1928

```

&lt;210&gt; 38

&lt;211&gt; 2278

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 38

```

tttttttttt tttttttttt ttttgtctca actcttttaa tttctttttt taaagagtct 60
cacgtgtcct ccaggctgga gtgcagtggc gtgatctcgg ctactgcaa cctccacctc 120
ctgttttcaa gcgattctcc tgcctcagcc tctgagtag ctaagacaac aggcgcgcgc 180
caccacaccc ggctaatttt tgtattttta gtagagatgg ggtttcacca cgttggccag 240
gctgggtctc atctcttgac ctcatgatct gcctgcctca gcctccaaa gtgctgggat 300
tacagggtgt agccaccgtg ccggggcctg taatttcatt tttaaatagt taagagcttg 360
cccgatattt taggacctat gatctgaaga tgttttttct ttccctaaac agggaaacgt 420
cctctctgta gttactgaga ggaagggtgag gacctcaggc tcccagtgtg actcctgctg 480
aaaaacctta tacttgacac agttcatttc tgggtcataca aagtcctgct gtagttcttc 540
acttgtttta ctttcgcttt catcttcatt agaataattt cctgaatctt ggctagtgtt 600
ggaactgtat tttttatgat cttcatcagt ttgattagt tcttctactg tagcaattgt 660
gcttatattt tcaattatga aacatttttc gatttgttcc tcagaagttg aaagcagaag 720
attcttcaat ggctgttcag agaaatactc atctatactg gaagaagggt taagtgatgg 780
aaagaagaca taattgatgc atctcaagaa gactttcgca gcataaatga caaacgggag 840
agcaaaataat gcaatacaaa ttccaactat aagccaaatt ttagagggtat ttcttggttt 900
tgttttctca catacagcgt cactaaaaac actgctttta ttcagctttt catccatggt 960
gtgtgctctg gctttcacac aatatacagt cagtggtttc aaattaggaa ctgtaacatc 1020
agtttttttc tcgataattt ttctctcagc atttgaagt ttttcccaaa aaataatttc 1080
ataaatcagt ggataatcct ggatcacagg cgtgtttcca gactgttttg gagcaccgat 1140
atagatatgg aatgaatcac taagggatct aatgttaaag actggaggaa gtaggaaagc 1200

```

```

ttgtatttca gtatcaaact ttatctcttc agaccaaaaa gatgtgttat ttccatcaga 1260
tgcttgtagc cggagaaggt aaattccttt ttggaaaacg ttttgaggaa agacacactg 1320
ggtagttttg acattttcac agtcagggtat ttgtttccat ttatacaaat ggtttccagg 1380
attccttttt aaaaaggcgt ggagccactg aacttgaaag gtcattgttg catatgtata 1440
atcccattta agaacatagt tctgattttg gacactgact tctatatatt ctggtggagg 1500
tagttcattt tcaactgtgg tctttatata atgtactgga ctatagacac caattttcca 1560
tgacgtaagt agtgctgctt taacttttag acaataagta gtctctgggt agagtttata 1620
aattttatgt ctggaataaa tattttcaat cctttcttct acacctgaag agtttttcca 1680
gataactaag ctatatgtaa agcttaaac atccaaagcc cacataacac tatcttttgt 1740
tccaggagag atgtgtatca ctattgcctt atcttcagct tctaaatgta cttctggagg 1800
accaatctga gctttgcgaa atggtgtaaa tgagtcaacc tcataccatg aagaagtgtt 1860
ttctttttct gctctttata gcaatttaat ttcttcataa acattcagct tgagtgaaga 1920
aaagttgcat ttggtactag taatattctg acaccagac aattttatcc aattatccat 1980
cccagttttt tgataatcga atgaaaaagt catctatgat gtcgacctct actttttgag gagattttag 2040
ccacctcagg ataaagttgt catctatgat gtcgacctct actttttgag gagattttag 2100
attttttcca cctgcggctg cggacaacac ccatggcgcc acggcgacga gcactagggt 2160
cgtcgcgccc aggaggacga ccatcatctg ggagccgccc cagatccac cagttacatg 2220
ttcgcgcacg cgcagctcct ctccagccgc atcgccccgt cctaaggaac cttagaaa 2278

```

&lt;210&gt; 39

&lt;211&gt; 2732

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 39

```

gatggtgttt ggaggcgtct gtccatccgt cacatccatc attgcagagt ccctccaagg 60
ctggaatctg gtgcagcttt cttttgctgc aaccacgcct gttctagccg ataagaaaaa 120
atacccttat ttcttttcgga ccgctccatc agacaatgcg gtgaatccag ccattctgaa 180
gttgctcaag cactaccagt ggaagcgcgt gggcacgctg acccaagacg ttcagagggt 240
ctctgagggt cggaatgacc tgactggagt tctgtatggc gaggacattg agatttcaga 300
caccgagagc ttctccaacg atccctgtac cagtgtcaaa aagctgaagg ggaatgatgt 360
gcggtatcat cttggccagt ttgaccagaa tatggcagca aaagtgttct gttgtgcata 420
cgaggagaac atgtatggta gtaaatatca gtggatcatt ccgggctggt acgagccttc 480
ttggtgggag caggtgcaca cggaagccaa ctcatccgc tgccctccga agaactctgt 540
tgctgccatg gagggctaca ttggcgtgga ttctgagccc ctgagctcca agcagatcaa 600
gaccatctca ggaaagactc cacagcagta tgagagagag tacaacaaca agcgtcagg 660
cgtggggccc agcaagtccc acgggtacgc ctacgatggc atctgggtca tccccaagac 720
actgcagagg gccatggaga cactgcatgc cagcagccgg caccagcggg tccaggactt 780
caactacacg gaccacacgc tgggcaggat catcctcaat gccatgaacg agaccaactt 840
cttcggggtc acgggtcaag ttgtattccg gaatggggag agaatgggga ccattaaatt 900
tactcaattt caagacagca gggaggtgaa ggtgggagag tacaacgctg tggccgacac 960
actggagatc atcaatgaca ccatcaggtt ccaaggatcc gaaccaccaa aagacaagac 1020
catcatctct gagcagctgc ggaagatctc cctacctctc tacagcatcc tctctgccct 1080
gaccatctct gggatgatca tggccagtgc ttttctcttc ttcaacatca agaaccggaa 1140
tcagaagctc ataaagatgt cgagtccata catgaacaac cttatcatcc ttggagggat 1200
gctctcctat gcttccatat ttctcttttg ccttgatgga tcctttgtct ctgaaaagac 1260
ctttgaaaca ctttgaccgg tcaggacctg gattctcacc gtgggctaca cgaccgcttt 1320
tggggccatg tttgcaaaga cctggagagt ccacgccatc ttcaaaaatg tgaaaatgaa 1380
gaagaagatc atcaaggacc agaaactgct tgtgatctg gggggcatgc tgctgatcga 1440
cctgtgtatc ctgatctgct ggcaggctgt ggacccctct cgaaggacag tggagaagta 1500
cagcatggag ccggaccocg caggacggga tatctccatc cgccctctcc tggagcactg 1560
tgagaacacc catatgacca tctggcttgg catcgtctat gcctacaagg gacttctcat 1620
gttggttcgg ttgttcttag cttgggagac ccgcaacgct agcatccccg cactcaacga 1680
cagcaagtac atcgggatga gtgtctacaa cgtggggatc atgtgcatca tgggggccc 1740
tgtctccttc ctgaccgggg accagcccaa tgtgcagttc tgcatcgtgg ctctggtcat 1800
catctctctc agcaccatca cctctgcctt ggtattctgt ccgaagctca tcacctgag 1860
aacaacccca gatgcagcaa cgcagaacag gcgattccag ttactcaga atcagaagaa 1920
agaagattct aaaaagctcca cctcggtcac cagtgtgaac caagccagca catcccgcct 1980
ggaggggccta cagtcagaaa accatcgccct gcgaatgaag atcacagagc tggataaaga 2040
cttggaagag gtcaccatgc agctgcagga cacaccagaa aagaccacct acattaaaca 2100
gaaccactac caagagctca atgacatcct caacctggga aacttcaact agagcacaga 2160
tggaggaaaag gccattttta aaaatcacct cgatcaaaat cccagctac agtggaaacac 2220
aacagagccc tctcgaaacat gcaaagatcc tatagaagat ataaactctc cagaacacat 2280
ccagcgtcgg ctgtccctcc agctcccat cctccaccac gcctacctcc catccatcgg 2340

```

```

aggcgtggac gccagctgtg tcagccctg cgtcagcccc accgccagcc cccgccacag 2400
acatgtgccca cctccttcc gagtcatggt ctggggcctg taaggggtggg aggcctgggc 2460
ccggggcctc ccccgtagaca gaaccacact gggcagaggg gtctgtgca gaaacactgt 2520
cggctctggc tgcggagaag ctgggcacca tggctggcct ctgaggacca ctcggtatggc 2580
actcaggtgg acaggacggg gcagggggag acttggcacc tgacctcgag ccttatttgt 2640
gaagtcctta tttcttcaca aagaagagga acggaaatgg gacgtcttcc ttaacatctg 2700
caaacaagga ggcgctggga tatcaaactt gc 2732

```

&lt;210&gt; 40

&lt;211&gt; 2201

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 40

```

tttaacatat ctgaacacac aatagctaag acccaaactg ggattagata cccactatg 60
cttagcccta aacctcaaca gttaaataca caaaactgct cgccagaaca ctacgagcca 120
cagcttaaaa ctcaaaggac ctggcggtgc ttcatatccc tctagaggag cctgttctgt 180
aatcgataaa ccccgatcaa cctcaccacc tcttgctcag cctatatacc gccatcttca 240
gcaaaccctg atgaaggcta caaagtaagc gcaagtaccc acgtaaagac gttaggtcaa 300
gggtgtagccc atgaggtggc aagaaatggg ctacattttc taccacagaa aactacgata 360
gcccttatga aacttaaggg tcgaaggtgg atttagcagt aaactgagag tagagtgtt 420
agttgaacag ggccctgaag cgcgtacaca cgcgccgtca cctcctcaa gtatacttca 480
aaggacattt aactaaaacc cctacgcatt tatatagagg agacaagtcg taacatggta 540
agtgtactgg aaagtgcact tggacgaacc agagtgtagc ttaacacaaa gcaccaact 600
tacacttagg agatttcaac ttaacttgac cgctctgagc taaacctagc cccaaaccca 660
ctccacctta ctaccagaca accttagcca aaccatttac ccaaataaag tataggcgat 720
agaaattgaa acctggcgca atagatatag taccgcaagg gaaagatgaa aaattataac 780
caagcataat atagcaagga ctaacccta taccttctgc ataataaatt aactagaaat 840
aactttgcaa ggagagccaa agctaagacc ccgaaacca gacgagctac ctaagaacag 900
ctaaaagagc acaccctct atgtagcaaa atagtgggaa gatttatagg tagaggcgac 960
aaacctaccg agcctgtgta tagctggttg tccaagatag aatcttagtt caactttaa 1020
tttggccaca gaacctcta aatcccttg taaatttaac tgttagtcca aagaggaaca 1080
gctctttgga cactaggaaa aaaccttgta gagagagtaa aaaatttaac acctatagta 1140
ggcctaataa cagccacca ttaagaaagc gttcaagctc aacaccact acctaaaaa 1200
tcccaaacat ataactgaac tctcatacc caattggacc aatctatcac cctatagaag 1260
aactaatgtt agtataagta acatgaaaac attctcctcc gcataagcct gcgtcagatt 1320
aaaacactga actgacaatt aacagcccaa tatctacaat caaccaacaa gtcattatta 1380
ccctcactgt caaccaaca caggcatgct cataaggaaa ggttaaaaaa agtaaaagga 1440
actcggaaca tcttaccceg cctgtttacc aaaaacatca cctctagcat caccagtatt 1500
agaggcaccg cctgcccagt gacacatggt taacggcgcc ggtaccctaa ccgtgcaaag 1560
gtagcataat cactgttcc ttaaataagg acctgtatga atggctccac gaggggtcag 1620
ctgtctctta cttttaacca gtgaaattga cctgcccgtg aagaggcggg cataacacag 1680
caagacgaga agaccctatg gagctttaat ttattaatgc aaacagtacc taacaaaccc 1740
acaggtccta aactaccaa cctgcattaa aaatttcggg tggggcgacc tcggagcaga 1800
acccaacctc cgagcagtag atgctaagac ttcaccagtc aaagcgaact actatactca 1860
attgatccaa taacttgacc aacggaacaa gttaccctag ggataacagc gcaatcctat 1920
tctagagtc atatacaaa tagggtttac gacctcgatg ttggatcagg acatcccgat 1980
gggtgcagcc ctattaaagg ttctgttgtt caacgattaa agtcctacgt gatctgagtt 2040
cagaccggag taatccaggt cggtttctat ctacttcaa ttcctccctg tacgaaagga 2100
caagagaaat aaggcctact tcacaaagcg ccttcccccg taaatgatat catctcaact 2160
tagtattata cccacaccca cccaagaaca gggtttggtta t 2201

```

&lt;210&gt; 41

&lt;211&gt; 1727

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 41

```

atgaattttg actcttgggg actgggctga ggacggggtg gtactgtctc tggcagggcc 60
agaggtggat ggggcttgaa aagggggttc aaggcagcag atctatgggt cagacgccat 120
ggagttgggt ctggtcttcc tctgcagcct gctggcccc atggtcctgg ccagtgcagc 180
tgaaaaggag aaggaaatgg acccttttca ttatgattac cagaccctga ggattggggg 240
actgggtgtc gctgtggtcc tcttctcggt tgggatcctc cttatcctaa gtcgcaggtg 300
caagtgcagt ttcaatcaga agccccgggc ccaggagat gaggaagccc aggtggagaa 360

```

```

cctcatcacc gccaatgcaa cagagcccca gaaagcagag aactgaagt cagccatcag 420
gtggaagcct ctggaacctg agggcggtgc ttgaaccttt ggatgcaa atctgatgctt 480
aagaaaaacc gccacttcag caacagccct tccccagga gaagccaaga acttggtgtg 540
ccccaccct atccccctta acaccattcc tccacctgat gatgcaacta acacttgctt 600
ccccactgca gctgcggtc ctgcccacct cccgtgatgt gtgtgtgtgt gtgtgtgtgt 660
gtgactgtgt gtgtttgcta actgtggtct ttgtggctac ttgtttgtgg atggtattgt 720
gtttgttagt gaactgtgga ctgcttttcc caggcagggg ctgagccaca tggccatctg 780
ctcctccctg ccccggtggc cctccatcac cttctgctcc taggaggctg cttgttgccc 840
gagaccagcc cctccctctg atttagggat gcgtagggtta agagcacggg cagtggctct 900
cagtgcgtct gggacctggg aaggtttgca gcaactttgt atcattcttc atggactcct 960
ttcactcctt taacaaaaac cttgcttctt tatcccacct gatcccagtc tgaaggcttc 1020
ttagcaactg gagatacaaa gcaaggagct ggtgagccca gcgttgacgt caggcaggtt 1080
atgcccttcc gtggttaatt tcttcccagg ggcttccacg aggagtcccc atctgccccg 1140
cccccttaca gagcgccggg ggattccagg ccaggggctt ctactctgcc cctggggaat 1200
gtgtccccct catatcttct cagcaataac tccatgggct ctgggacctt accccttcca 1260
accttccctg cttctgagac ttcaatctac agcccagctc atccagatgc agactacagt 1320
ccctgcaatt gggctctctg caggcaatag ttgaaggact cctgttccgt tggggccagc 1380
acaccgggat ggatggaggg agagcagagg cctttgcttc tctgcctacg tccccttaga 1440
tgggcagcag aggcaactcc cgcctccttt gctctgcctg tgggtggtca gagcggtgag 1500
cgagggtggg tggagactca gcaggctccg tgcaagccct gggaacagtg agagggtgaa 1560
ggtcataacg agagtgggaa ctcaaccacg atcccgcccc tctgtctctc tgtgttcccg 1620
cggaacacaa ccaaacctgt cgctgtgacc cattgtgttt ctctgtatcg tgatctatcc 1680
tcaacaacaa cagaaaaaag gaataaaata tctttgtttt cctagtgt 1727

```

&lt;210&gt; 42

&lt;211&gt; 1749

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 42

```

ggccgctttt tttttttttt tttttttttt ttttttcttt tttttttttt tttttttttt 60
tttttttttg attgaaaaga ttcttaattt tattttcttt aattttataa aatacacttt 120
gtaagataag tttctaaaag tttatccttt atgtgtgta aaattgcaat tctatatcag 180
aaatgaagga aacactttca gttgattaac tccctttgtg tgtgtatata tgtgtatgta 240
tgcatgtgag gttttcaggg aagggttggg tatttgttat gttattaaat caaaacaaaa 300
cacaaggtag ggattacttc actgtccttt atcttgattg gtttcttaca aaacattttc 360
cctctcctcc ttctatgcag cctggaagct tatcttgat actggtttga aaacaagtat 420
caagtgtctt ttgttaaagc tcttacatct ccttaaatat tgctgaaacc actttggggg 480
aaaacaacaa cacaactcct tacaacaaaa gaactgtagt acaaatcttt ccttcaatta 540
aaaccaatca gacttttttt tttttttaac ccaaagttaa caaaaacagg aaaagactga 600
aatctgggag ctattcaggt ctcaaactct ttctgcctgt cctttttcct ggaagcttac 660
caactgaata gctgatgact ggtgcattct gttatgtgat ctatatcagg agaaaataac 720
ctttatgtta aacctaaact ttaacacacc aagataacat tgctaagtaa aatcattttc 780
cattagctag aaagaacgat cagattactc aaattgagat tcaaattcac caaatctgtt 840
tctgcaaagg cagaatactt gtagaaaatc ccaatagatt caactagcca atttttaata 900
tcatttgtga tgcttaattg ccaattttcc tagtttaaaa aacagtcata atcaaagaat 960
tattctccag acatttctga tgcaacccca aataagtaat aaacaaactg gaatacatga 1020
aatgtgcac attctaaaac aaatcaagac ctccaatca cctacgatga ctgaatggat 1080
aataccocat gaaatgagca ccattgtgaa gatatgacag aggccagagt acacaactaa 1140
ttaacagaaa aaaagacatg ctatccaaag agttatctat cctgtgtcta ccagagggcc 1200
atctcagggt acaccattag ccaccagcaa ctgctgctcc tcaggccagt ctgttctcat 1260
gtaagctagt ttccttctat tctcagctcc ttggaaacca cagggttgtc atggtagctg 1320
ttatcaagga gaaggagtg agaagatgct gacaacaccc tgtttctctt ccctaacgag 1380
gtgtaaggcc agatgcccc ttcgtctaca cagattctac gctcccttat gctgtaagta 1440
aggttggctg agttagggtc tcagtagtcc atcgccatcg gggtcagtgc tctctttctg 1500
tgggtgaaag atccttgctt tgacccctt ctcccagctg caataggcag atttgggcaa 1560
acgtctttat tgtttttctg acattctttt tcttctatc ttcagtgtga atagagagac 1620
cagaatgaat tccattttgt acaccaaaga gaatatattt ggcccctata gatggcaaga 1680
ggaccaaaga cattccttct ctgtacctga gcattcttcc ttccactttg ttccatcag 1740
tggaagaaa

```

&lt;210&gt; 43

&lt;211&gt; 1740

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 43

```

tcctgttaaa acaaggaggt attcgggtac cgacggaaaa tatgttaccg tattcagggc 60
agtgaagaa cactgtcctt ggtttcctga aaaaggaacc ttaagtgtag aacaatggga 120
tagtggtggt gcaaaattcc aggaactggg ccctacaggg aattatgttc ccatcactgt 180
gtggggtgat tgggccttgg tacgtgccat cctgatgaca tagcaatccc gtgacccctc 240
gcagttacta cagttttctg aatctggaga ccctctacct ctctctcagc tttcttctcc 300
cacggggcct tcgttatctg atcagcctct cccttcgcct actcctcccc cacctgatga 360
tgttgagaat tcaatatcta attctgggtga ctttggttta acattacccc ctgggtgatct 420
tattttatatt cccgaagagc cgctacttgc agcttccgcg gccccgaata ggacagccct 480
gggcatata tatgctaatt ctccctctct caaacctttg cagcatttgc ctctggagtc 540
agctaattggc tccggggcca aactacaatt cacctataat tctgcaggcc cttccccgtc 600
ctctgcagcc cctcgccttc ctgtcgtttc agttcctcaa ccggtcactt tgccatccac 660
tcaggctgct tctctgtacc ctctctcaca catggatacc agtaatcacc agtgcacttc 720
tgccctctct gctcccccaa tgccctcttc tcacactctc ataccggtcc gacctctca 780
accttagttt cccttatcta cacatgcttt tctgttact tctatgtgta ctccgtctca 840
ggtgcctact cttgaaactt caatgcaact cttattacgc caacacaagg aaacaagtgg 900
attagaggca tgggcttgtc cgggtcacgt agaacctcat aatgctcaag gtgtacaaat 960
gcgtcgctat gcgcgcctca atcttacctt tttaaaagaa ttaaggatg cttgtactca 1020
gtatggctct acttctcctt gtgttaaaat ggtattacag actttttgta ctgaggtcat 1080
tttgctcctt ttagactggg accttttggc aaaagctggt ctaaccccat ctgagcattt 1140
acaattccgt acctgggtgt cagaggaggc ccgtctgcag gctcagctaa atcgggtgta 1200
tggcattcta attactcagg ctgagctcac aggtccgat gacttctctg atatttatgc 1260
ccaattacgc tttgatgctg ttaccacgga acaagtaaca aagggtgtgta tgagagcttg 1320
ggataaatta cgcaccccag gccaaagctcc tactgttaaa caagggtcaca atgaattata 1380
ccctgatatt ttagctaaat tacaagacgg ggttgaaaaa tctgtctcgg atgagcatgc 1440
tcaagaaatt ctccctcgta tggtagcttt tgagaatgag aacctatgag gtaaaatggc 1500
catgcttccc gtccagcaac aaaatgtacc tgatcaggag gtgttgctg catatattaa 1560
agcttgtgaa gacattggat cagagaccca caaagccgtt ctgtgggcat gggccataaa 1620
ggacagcaat caaactggct cgactgatcc tttctttcaa ggtactttgg taggatgatt 1680
gtggtcatct gagttctctg atttatgtat gctttatctc tatctagcag aaattacctc 1740

```

&lt;210&gt; 44

&lt;211&gt; 2454

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 44

```

agcagcatgt tctgggaacc tgggtaacgg aatgattatg tttagggttg tttcactgag 60
gaggttacat gaccgtgttt taaaaggatc agtcagtttt aaatcgggaa ggacatctga 120
gcttgagaac atcttgtaac aagggtattga atcgtgaaag gtgtgtttga gtagtagtcc 180
actgtagcag gaacagaggg tgcaagtaga gaagaaataa atgaatctgg aaagggtgga 240
ttaggaccag aatgtgaatg gctttgaata gttgggtcac ccagaggacc tgaagtccag 300
ctttctgcta tttatcaaac atgctaataa attgtcaatg actttaatat tagtatacca 360
ttttaggtat ttaggattta aatgctctct tagtattcct aggcctttatt attttgcctt 420
tagactatct caaatataac cttttgcaaa gtaagtagaa aatataaagt tgtgctgttt 480
ttgttcattc aggatgttat tcatttgggg atattgatag tatagctttg atacttattt 540
attggttaact tcagtataag atgccctcag acaggaaaat cagaattctg atcagttttc 600
ctgaattttt tagaaaacca gctaaaaact ttggtctatt gctattcatt ggccaaactt 660
gttatttttg agattattct atcaatgtga attaagtgat accataagaa aatagcagaa 720
cattcaatac ttgagcactg tctgtgccca tccctatggg atatgtcagg ggatgataaa 780
tgtttagtag aaatacacat aatactgaca tagcttgttg ctctcttctt aatggaactc 840
tagttcttca tgggtccatca ctgttttctc ttgttaagcc atttttgata aactgaagca 900
gaattaatgc tttttggggc agtgctgcta tagtactcag tataaatggt atattgctta 960
gaatagctcg ttgtgttaag attttctctt ctcttagct ccaagattga gataaactga 1020
taactatttt tttattttgc tgtcatattc ctttcaaaac tttctttttt ttttttttat 1080
ttttttttga gatagggtct tttctgttg cccaggcaga agtgacagtgg tgcagtctcg 1140
gctcacagca acctccgcct tttgggttca ggcgattgtc ctgcttcagc ctcttgagta 1200
ctgggtatcg aggcatgtgc caccacaccc gactaatttt tgtatttttg gagacagggt 1260
ttcgccatgt tggccaggct ggtctcaaac tctgaccac aagtgatcct ccaccttgg 1320
cctcccaaag tgctgggatt actggcgtag gccaccatgc ctgaacctt tcaaacattt 1380
ctattaggat caggcctcac atcctottta accaatctga ttatatatta ccctggccaa 1440
tgtggcttat gctttccagg attgaaatat aaaaagaact ggaattactc aaatcagata 1500
aaatctttta gatctttcca cgtattatgt cagggtgatg gttatgaata tgcataatct 1560

```



```

tgccatccag cagttcttca gatactgctg actttggcat acaaacaggg aacacacatt 1620
attctctgtt ttgtaagggg aaaatgggtt aacaaaaaat cctacatac agcttggttt 1680
gccactaatc ctttgaatta gatttttttg gacatcacaa agctgaaaaa gttttttccc 1740
taattctttg cttgataaat ggctggaata gttatagttt tgttattgtg tatcttgctg 1800
atctatatat ttttctctgt gttatttttt gagaccgggt cttgccctgt tgcccagggt 1860
ggagtgcagt ggctgatca tagctcactt aacctacaac tgctgggctc aagtgtacct 1920
cccatttcag cctcctgagt agctacaact acaggcgtgt gctaccatgc ctggctaatt 1980
tttacaattt ttttttagag atgggggtct gctatgttac ccaggctgat ctggaactcc 2040
tgggctcaag cagtcctgcc ttggcctccc accgtgctag gattacagggt gtgagccacg 2100
atgcctggcc ttgaaatttt tttttaatag aattaatcat ttaggaatca atttatcagt 2160
attgtttgta gtgttcagta aaatgattta tattatagtt agttgtccta ttggagtttt 2220
gtttaatgaa aaagctgagg gttgggattc agaataact tctgtttttt ctgtgatgtc 2280
ttttagaagc cttgtatttt ggaaatagtt gttcacgggt tatatctggc tgaaggagag 2340
tagatatcac ttagggacca gactgaaagg tgtaggtag acattaacat ctgagggcag 2400
tatctgtgta acatgtaatg agcagtgatt agaactga aaataattca gacg 2454

```

&lt;210&gt; 45

&lt;211&gt; 2270

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 45

```

ataccttcaa cccaatccag cttccagagc taagctcagc atgatcaaca ccatgtcaaa 60
aatccgtggc caggagaagg ggccaggcta tcctcaggca gaggcgctgc tggcagagggc 120
catgctcaaa tttggaagag agcttgagga tgattgcaac tttggcccag cacttggtga 180
ggctggggag gccatgctgg aactgtcgga ggtcaaagac tctttggaca tagaagtga 240
gcagaacttc attgacctc ttcagaatct tcatgacaaa gatcttaggg aaattcaaca 300
tcatctaaag aagttggagg gtgcagcctt ggattttgat tataagaaga aacgacaagg 360
caagattccg gatgaagagc ttogtcaagc tctagagaaa ttgatgagt ctaaggaaat 420
tgctgagtca agcatgttca atctcttgga gatggatatt gaacaagtga gccagctctc 480
tgcacttggt caagctcagc tggagtacca caagcaggca gtccagatcc tgcagcaagt 540
cacggtcaga ctggaagaaa gaataagaca ggcttcactc cagcctagaa gggaaatca 600
acctaaccac cgaatgagcc tggagtttcc aactggagac agtactcagc ccaatggggg 660
tctctccac acaggcactc ccaaaccttc aggtgtccaa atggatcagc cctgctgccc 720
agctctgtac gactttgaac ctgaaaatga aggggagttg ggatttaaag agggcgatat 780
catcacactc actaaccaaa ttgatgagaa ctggatgag gggatgctgc atggccattc 840
aggcttcttc cccatcaatt atgtggaaat tctggttgcc ctgccccatt aggatgttat 900
gctggtgggc tgcctctctc ttgaccaga tagttacggg taaccaactgc tttggcaatg 960
ctgcttataa cacatcccaa gtgcaggccg cagtgggtcca cgtcatccag cccaccacag 1020
tgactttggt tgacttggtg gctcccacag gagtcatggg gatggatgat atcctcttag 1080
cctggtgggc gtggcatgtg ctttttaaaa catcatctga gaccagccag tagtcacaga 1140
actgctgttt acacagttct caggaggctg tggtttctta gaatatgacc atgagccatt 1200
tcacagaaaa accatccac cgaagatatt gtctatcacc ccaggggcca tctgaaggtc 1260
tctttgcatt tctccatgca aagaggagaa agcttttgc ttcacactgt ccttcccaa 1320
atatgtgagt catggaattg tcaaagtaag ccttccctca ccagcaaatt gtctcctgat 1380
ctgaatgaat ttgtctctta atgcatccat agaaaagtgt taattgtggg ttcaaagcat 1440
tctctgcaaa taggcactc agctcctcac acttatggct atttctgacg tatagccagt 1500
tttcttccct ccttgctatt aaagccagag cggtaattcc aaattatttt tcagtaagac 1560
agttaatcag cattattgtg agagggactg aaaagaaatt ctccattatg aggaattggg 1620
aagaaatctg gtatccaagc tttaaattct tgctatacag aaactatgta tgtatttagg 1680
ctatttctga agggcacagg gaagggggaa caaatatctt cacttcagtt ttatttgtga 1740
attacatgtt tcatgaatcc atttggcaca gagacacaag gaagaaaaca ctagttaacca 1800
tctttccact agttcataga ctgagaaaca gtaaatacct ttcctttcca cttttaccct 1860
gtgttctttg aacatcattt gtgcagattc tgccctcaat gaggaccaa taaagatgat 1920
ttttgtgctt agcagtttaa ggtatatggc tgcatatgca aaactctttc ccaattcagt 1980
cgctactttt acttctgccc tttctatcca tctgttctat tttgtgtgta cagtgtgtg 2040
tgtaagctta tcagtgtgtt tttttatttg tatcagtcag gaaagtcctg ttaggtatcc 2100
agagttctat ttatctagct gtacagactc tttcagaggt ttaacgtgct gcttccgatg 2160
tgccacctgc agtcgtggat catgtggagt gaaaggcaaa tcttactgct taatgtataa 2220
actctcccca nnaggaagca tgcgtgttcc caataatat tgctgaagac 2270

```

&lt;210&gt; 46

&lt;211&gt; 1482

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 46

```

agctctcact gcggggaccc tgctacttct gacagccatc gggcgggcat cctgggceat 60
tgtggctgtt ctctcagga gtgaccagga gccgctgtac ccagtgacagg tcagctctgc 120
ggacgctcgg ctcatggtct ttgacaagac ggaagggacg tggcggtctgc tgtgtctctc 180
gcgctccaac gccagggtag ccggactcag ctgcgaggag atgggcttcc tcagggcact 240
gacccactcc gagctggacg tgcgaacggc gggcgccaat ggcacgtcgg gcttctcttg 300
tgtggacgag gggaggctgc cccacaccca gaggtctgtg gaggtcatct ccgtgtgtga 360
ttgccccaga ggccgtttct tggccgccat ctgccaagac tgtggccgca ggaagctgcc 420
cgtggaccgc atcgtgggag gccgggacac cagcttgggc cgttggccgt ggcaagtcag 480
ccttcgctat gatggagcac acctctgtgg gggatccctg ctctccgggg actgggtgct 540
gacagccgct cactgcttcc cggagcggaa ccgggtcctg tcccgatggc gagtgtttgc 600
cggtgccgtg gccaggcct ctccccacgg tctgcagctg ggggtgcagg ctgtgttcta 660
ccacgggggc tatcttccct ttccggaccc caacagcgag gagaacagca acgatattgc 720
cctggtccac ctctccagtc ccctgccct cacagaatac atccagcctg tgtgcctccc 780
agctgcgggc caggccctgg tggatggcaa gatctgtacc gtgacgggct ggggcaacac 840
gcagtactat ggccaacagg ccggggtact ccaggaggct caggtcccca taatcagcaa 900
tgatgtttgc aatggcgctg acttctatgg aaaccagatc aagcccaaga tgttctgtgc 960
tggctacccc gaggtggca ttgatgcctg ccaggcgac agcgggtggc cctttgtgtg 1020
tgaggacagc atctctcgga cgccacgttg gcggtgtgt ggcattgtga gttggggcac 1080
tggctgtgcc ctggcccaga agccaggcgt ctacacaaa gtcagtgact tccgggagtg 1140
gatcttccag gccataaaga ctactccga agccagcggc atggtgaccc agctctgacc 1200
ggtggtctct cgtgcgcag cctccagggc ccgaggtgat ccgggtggg ggtaccacgc 1260
tgggcccagg atgggacgtt tttcttcttg ggcccgttcc acaggtccaa ggacacctc 1320
cctccagggt cctctcttcc acagtggcgg gccactcag ccccgagacc acccaacctc 1380
accctcctga ccccatgta aatattgttc tgctgtctgg gactcctgtc taggtgcccc 1440
tgatgatggg atgctcttta aataataaag atggttttga tt .1482

```

&lt;210&gt; 47

&lt;211&gt; 2588

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 47

```

gtccctccgc gcaggcgggc ggccccggag cgctgggtgcc ggcagaggcg gcgacgggtg 60
cgccctcct catcatgaac agaggcttct ccgaaaaaag ccacacattc ctgccctaga 120
tcttcttccg caagatgtca tctcagggg ccaaggacaa gcctgagctg cagtttccct 180
tccttcagga tgaggacaca gtggccacgc tgctagagtg caagacgtc ttcactctgc 240
gcggcctgcc aggaagcggc aagtccacgc tggcacgggt catcgtggac aagtaccgtg 300
atggcaccac gatggtgtcg gctgacgctt acaagatcac ccccgcgct cgaggagcct 360
tctccgagga gtacaagcgg ctcgatgagg acctggctgc ctactgccgc cgccgggaca 420
tcagaattct tgtgcttgat gacaccaacc acgaacggga acggctggag cagctctttg 480
aaatggccga ccagtaccag taccagggtg tgctgggtgga gcccaagacg gcgtggcggc 540
tggactgtgc ccagctcaag gagaagaacc agtggcagct gtggcctgat gacctgaaga 600
agctgaagcc tgggctggag aaggacttcc tgccgctcta ctccggctgg ttcctgacca 660
agaagagctc tgagaccctc cgcaaaagcc gccagggtct cctggaagag ctggggaacc 720
acaaggcctt caagaaggag ctgcgacaat tctccctgg ggatgagccc agggagaaga 780
tggacttggc cacctacttt ggaaagagac ccccgggcgt gctgcattgc acaaccaagt 840
tttgtgacta cgggaaggct cccggggcag aggagtacgc tcaacaagat gtgttaaga 900
aatcttactc caaggccttc acgtgacca tctctgccc ctttgtgaca cccaagacga 960
ctggggcccg ggtggagtta agcagacagc aactgcagtt gtggccgagt gatgtggaca 1020
agctgtcacc cactgacaac ctgcccggg ggagccgcgc ccacatcacc ctccggtgtg 1080
cagctgacgt agaggcctg cagacgggccc ttgacctctt agagattctg cggcaggaga 1140
aggggggcag ccgaggcgag gaggtgggag agctaagccg gggcaagctc tattccttgg 1200
gcaatgggag ctggatgctg acctggcca agaacatgga ggtcagggcc atcttcacgg 1260
ggtactacgg gaaaggcaaa cctgtgcca cgcaaggtag ccggaagggg ggcgccttgc 1320
agtctgcac catcatatga gtgttctcac caccacttat gcccttagaa ggggaaggga 1380
gagggaacg tgcctctgt ttgatcctt ttttgtgaca ttttttttta ttttttttta 1440
ctcaaaagta acctacctgt aacttttta aaactgtta aataaactgac cctcccttcc 1500
tgtccgcct ctcccctct aatgctcag ctcccaacac aagggtggca gggaggcacc 1560
attcaggaac ctggaccaaa gctgacgagg ctgggccaag ccagggatgg ggccacagcc 1620
agaacccga gccctacttc caggttctgg ttagctcagc cccagcccag cccagctgct 1680
ctgccagag ctgggtgagt ggggagacac ctcagagccc cgcaaaaccc actgaccgga 1740
ggcaaaaggc agtggggctg ggggtagttt tccatggtca cagagaacta gtggtggctc 1800

```

```

tgagaagggg aggacctctg ggctttgatt ccatctcctt gtcttttttc tttgttttta 1860
gagacagggg cctgctatct cccaagctgg agtgacgtgg tgcgatcatg gctcactgca 1920
gcctcgaaact cctgggctca agcaatcctc ctgagtgate ccatttctta atcagtgtag 1980
ccccaagaag gctggggcta tttaccaggg tagaaaaagg agcttacctc ccaccttggg 2040
tctaagtcc ctgccccctc cccttcacac cataactagg taacagtttg ataactaggg 2100
aagaaagcag aacagttaag cagccgccac atccccgctg gctggggggc tcaactccagg 2160
aaggggctgg actggctgtc ctttccagtg gcctggctcc gctgtgtgga tggggagatc 2220
ggggccagag gcagaacctt ggtgaggaag ctccagtcct gctctctacc cagcccctct 2280
tgctccatg gtgctctgg aggcctctgg gcctcctcta acaggggctg gtgggcacca 2340
agagccaatg gagtagacct ctggctggta agggccaagt cccaccggtt gcttctggga 2400
aggggtttct aacactagtc tgtgtgctgt ggttccctgg gtgcctcca ctgccctctg 2460
ttcagtaaca gggccttget aatcggttg tcaactcaaa aaagtgttt ggatttaagt 2520
tactatcctg gctttgccca acctcagcaa cctgtaagac tgataatgaa ataatcatg 2580
ttaatccc

```

&lt;210&gt; 48

&lt;211&gt; 2222

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 48

```

tttttagcct taggcattgt ttttattcac ttgaacactg tacaaatatt acaatttctt 60
tttctgcaaa aaagtataaa aataatcttt atataaggaat ccattcgtta ctgtaaatct 120
ttctaatact ctgcaaatgg ctctaaatga gggtaaatga aaaagccgaa atgaagagag 180
ggttattggg cagcaggagg tggggccaat catcagggtt ggaccacca gactcctccc 240
cagagacctc tgttccctct tggtagccgc cccaccacc tgcaggttct agggctaaag 300
gcccagcaga agtgggcacg tgagagggcc agggaggagt ggagggtcag ggggtggggg 360
atagcgaagg aagctagaag tgggtgctgg atgtgccag ttcaccccca cccttccctc 420
ctaggggaag gagctggcag aagcaagaca ctgaggtctg cagggaacaag aactgcccc 480
ctatgggggt aatggcagct cctcggttct gtgccactgg gtggcagccg agcctggggt 540
ggcgaaggcc gcagaaaggg agaagcaaac actttggctc cacggtgatg ggggtgagt 600
cctgttcccc tgcctgcca gcacagaagt gccagcacag gagcgggagc tgtggccaga 660
actgtgcggt gagaggaggc cggagaagcc aggcgtctgt ggtctcaag ctctgtaggg 720
gtcgggtggg agaggtcccc aggcaccccc cagggtcagc agtctgggtc ccagccacac 780
agggcatgtc cctgtcagtc agaggttgag aacaggcaca tcaaagaggt cacagacacc 840
ttcactctcg tccaggttgt agatataatc gtggtctccc gggggtggag aaagacgaag 900
cagatgggca aacacttctg aggcacatcaa ctccctcagc agctccgagc tcatgcactc 960
tcgtgtggga tcaaagattt ctgacagctc tttggggagt tccaaaacac ctgtggggtc 1020
tgccttgatg ggctcaaagg aggtagaagg gttgggtccg gacgaactgc tgcgtttact 1080
gttctgctg ctgctgctgc tgcctgctgc gctgctgctg ctgtccagca gggcagaaga 1140
ctgcagtgcc cgggtgtcca gtgttgttgg gccagtgagg agtgaactga gctcaccact 1200
gtccttgcta tcagtccag ggcggccact cactgtgatc tcagctgctg ggccagccat 1260
tccctggact tctgcaactg cagggacagc agtgggagt agctgaggac tatttggagc 1320
tgaggcttcc tgggactggg ctagggcagg ctggggcaga ggtggagggt tagaaacagc 1380
agatgggctc tggagcaaat cttcaggttg tggcacaggc acagccacag ggggtgagct 1440
ccatgcctcc ttgttcacca gcagaacctc aatgggacca ctcacactct tcaggtgaat 1500
ctggtacttc ttctgcccac tgagacctc tgggatgggc acctccaggc tgggtgctga 1560
tggggcccg atggccaaga ggttatctcc agcaaagcat ctgcagatgt cctcatgagt 1620
gacgtaggcc aaacagctgt tctgcacgtc ctctgtgacg ttccggatgc tctgctgcac 1680
ccacaccttg tgcgtgctta gttcttgctc ccgctgctgc agctcctega tctctgctt 1740
gagctcaatc agtttctcag caatctcccc ggtattgcag ccaggcccca caccctgag 1800
cccaggaggt ggggctgaga gggactgctg agaactctgg gtcccatggc cctgccttc 1860
ttcggcacc cccacccac gccgacact tctgggtggg agactctact acctccccc 1920
tatgcccact cacttccact ggatgctgtt cttggacttt ttctcgatta gcccatacc 1980
ttccaaaaca ttggtaattg cgtaaatccg ccgcttctgg cgtacagcta ggggtgcagc 2040
tgctggcag agagaatgga gaatgctcag cccactctg ggggtgtacc ccagccacc 2100
tgagacgtgg tctgggaagg gagtaatctg gattccaacc ctgtagtgc tcccaggcgc 2160
tactgcagct caggaccgca gctctgtccc ataggcagct cttctcctcg ccagccagga 2220
aa

```

&lt;210&gt; 49

&lt;211&gt; 2176

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 49

```

tttttttttt ttttttgcca ttttaacttgt ttttaatgttt cttcacaaat ggtgaaaaat 60
actaaagtac agacaaggaa taatcataat gttgtggcca acattataaa tatggaatta 120
taaatttaaa acattttctg gtttaaaaaa taaatctggg agtcaatgca gctctgcggg 180
gtctctgcat ctagtgggc cgatctctgc gctectgacg gtgctgcgct ttatccattt 240
ttccagggtcc tccacgtcct cctcttcttc ctcccatctg ttccatcaaa ggtccagggg 300
gccccccagg gccacctcgt cttcctccac caaagccacc tccgtccatg ccccgccac 360
cacggaagcc acctctgtct ccaccacggc cacctctgaa cattccaccg ggaccaccac 420
gatccatgag gccacctctt cctccccgca tgcaccagg ggcacctctg ccacgatcac 480
caccgggggg cggaagggt ggcgaggga agccttcagg ctttggggcc ttacactggt 540
tgcactctgt tctccaggcg aagtctctgt ttccacaacc cggattggga cactgccagt 600
ctccagctcg gtgctggacg tttcctcttc cagaggggtt cctcgggaa ccccggggtc 660
ctcttgagg gaagcctcct ctatctcttc cacggcctcc catgcaacc atgggtcccc 720
caggacctcc tgggctcct ggacctccac ggagtgggtg tggcatgcct ctgccctcac 780
ggggtggcag accacccgc atactgttca ttggaggctt cttccgagca agggagactt 840
taagtttgct ccttgaaaa tctttcccat caaaccattc caccgagcc ttggcagtg 900
gtgggtcttc ataggacact gtggcatcgc ctttgggctt tctgtttcc ttgtccagt 960
agatgtggat catgggttgc ccagttctct tgttcatctt aacaacccca cactgcttaa 1020
agaagtctgc cagatcatct agagtccac tgtcatttaa tccttgtaaa taaattgcac 1080
tgttgctaga gtcttcatct ggatctacag gtgggcttag atcaagatct ggtccttcat 1140
ccatgggtcc accaggctta ttgaagccac ctgctctcc agcgtgccc attccaccgc 1200
gtcctctccc ccgccacct ctgctcatgc ctccacgac aaatccccct cttccccctg 1260
cccggttatc agggccactc atgctcgggt tctctcctgg tccggaaaa cctccagact 1320
cctgcccata aacacccatg ctactggggg ggtcctgtcg gaatgaactc tgcgtcccgt 1380
agctgctgct ctggtggcta tattgacttg gagcttggt gtaggatcca gtttgggggtg 1440
ggtaaactagt gggaggctgc tggccatagc tgccttggt accatagcta ctctgctgtc 1500
catagctgct cgggtgcca taggtgttct gctgagagta actgctctga tcataactag 1560
tcggctgtgt agaggaatag ctggtaggag gtaggatgg aggtgcagt actgctgca 1620
tgggtagct cccagggtacc tggggataac ttaggttact ctgtccatat cctaggtctg 1680
gctggttgta acccctgtg ctgattgag gttgactagt ctcagtgggc ttgtttccat 1740
ctcggtctct gtaggtgcag tggctgctgg ctgctgccc taggtggat aagcaggctg 1800
agtgccatag gcagactgag ctgcatagga ggctgggtg gtggtgactg tagcagtgg 1860
ggtatcataa gcaccagtgc cataccctg gacaggctgg ctgtatgcct ggggggcagt 1920
tggagtagta taaccagtgg gaggctgtcc ataagaagtt gcataggcgg tctgcccata 1980
ggttgcagt gtctgagcct gggtagctg gacatcagt ggctgtccat aggttcata 2040
gctttgttgc ccatatgct ggggtgtctg tgcatatcct tgagtgggtc gggcggtgta 2100
agcactgtag cctgctgctg ctgcagcttg gctataggtg ctgtaatccg tggacgccat 2160
tttctcacct tagaaa 2176

```

&lt;210&gt; 50

&lt;211&gt; 2101

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 50

```

cctccatggt ctacggcagg ctagtggcgg tggccacctc tcggaaccac cggcctcgga 60
cggccagcgg ggctgctgct caggttctgg gaagttctgg attgtttaat aaccatggac 120
tccaagtaca gcagcaacag caaaggaatc tctcactaca tgaatacatg agtatggaat 180
tattgcaaga agctggtgtc tccgttccca aaggatatgt ggcaagtca ccagatgaag 240
cttatgcaat tgccaaaaaa ttagggttcaa aagatgtcgt gataaaggca cagggttttag 300
ctggtggtag aggaaaagga acatttgaaa gtggcctcaa aggaggagtg aagatagttt 360
tctctccaga agaagcaaaa gctgtttctt cacaatgat tgggaaaaaa ttgtttacca 420
agcaaacggg agaaaagggc agaatatgca atcaagtatt ggtctgtgag cgaaaatatc 480
ccaggagaga atactacttt gcaataacaa tggaaagggtc atttcaagggt cctgtattaa 540
taggaagttc acatgggtgt gtcaacattg aagatgttgc tgctgagact cctgaagcaa 600
taattaaaga acctattgat attgaagaag gcatcaaaaa ggaacaagct ctccagcttg 660
cacagaagat gggatttcca cctaattatt tggaaatcagc agcagaaaa atgggtcaagc 720
tttacagcct tttctgaaa tacgatgcaa ccatgataga aataaatcca atgggtggaag 780
attcagatgg agctgtattg tgtatggatg caaagatcaa ttttgactct aattcagcct 840
atcgccaaaa gaaaaatctt gatctacagg actggacca ggaagatgaa agggacaaag 900
atggtgctaa ggcaaatctc aactacattg gcctcgatgg aaatataggc tgcctagtaa 960
atgggtgctgg tttggctatg gccacaatgg atataataaa acttcatgga gggactccag 1020
ccaacttctt tgatgttggg ggtggtgcta cagtccatca agtaacagaa gcatttaagc 1080

```

```

ttatcacttc agataaaaag gtactggcta ttctggtaaa catttttggg ggaatcatgc 1140
gctgtgatgt tattgcacag ggtatagta tggcagtaaa agacttggaa attaaaatac 1200
ctgtttgtgtt acggttacaa ggtacacgag tcgatgatgc taaggcactg atagcggaca 1260
gtggacttaa aatacttget tgtgatgact tggatgaagc tgctagaatg gttgtaaacg 1320
tctctgaaat agtgacctta gcgaagcaag cacatgtgga tgtgaaattt cagttgccaa 1380
tatgatctga aaaccacgtg gatggctgaa ggtgttaaat gtgctataat cattaagaat 1440
actgtgttct gtgttattgt tctttttctt tttagtgtgt ggagattgta attgccatct 1500
aggcacacaa acatttaaaa ggatttggac tgcatttaat tgtaccattc agaatggact 1560
gtttgtacga agcatgtata atgcagttat cttctttctt tcgtcgcagc cagttctttt 1620
tgcttctcct acaaaacgta acttgcaatt tgccagttta ttattgttgg atacaaagt 1680
cttcattgat aagagtctta taaataagat aagtacgaag ataaagcttt attctttagt 1740
gttaaaatac agtatatcta ataactagcc tcattagtag agcagtatat taaaacaatg 1800
ttttatgtaa aaagtgttta tcttcagcac caatacatg ataaatgtat caatcactat 1860
ttataaacag agctttcaaa cactcctcag aatattcttc taagtatttt gatgaagtaa 1920
ctttgttaatt atttgaacat tgttttaate attaggcaaa cactgattaa ctgcaagtct 1980
tcgatattct gtcataatga gaaacacctg naggtttgct tccaataaag gcataatatc 2040
canggaatta cagacaaaat taagaatgtc aatttaagtt aataaaaaatc tcccaatatg 2100
c 2101

```

&lt;210&gt; 51

&lt;211&gt; 1439

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 51

```

cagaaggcaa actgtttgag gaaactgggc atgaagaccc aatcacaaaag actagtcgag 60
ttttacgtct agaagccaaa agcaaggatg gaaaattagt gccaatgact gttttccaca 120
aaactgactc tgaggacttg cagaagaaac ctctcttggg acatgtatat ggagcttatg 180
gaatggattt gaaaatgaat ttcaggcctg agaggcgggt cctgggtggat gatggatgga 240
tattagcata ctgccatggt cgagggtggt gtgagttagg cctccagtggt cacgctgatg 300
gccgcctaac taaaaaactc aatggccttg ctgattttaga ggcttgcat aagacgcttc 360
atggccaagg cttttctcag ccaagtctaa caaccctgac tgctttcagt gctggagggg 420
tgcttgcagg agcattgtgt aattctaate cagagctggg gagagcgggt actttggagg 480
cacctttctt ggatgttctc aacaccatga tggacactac acttctctctg acattagaag 540
aattagaaga atgggggaat ccttcactct atgaaaaaca caagaactac ataaaacggt 600
actgtcccta tcaaaatatt aaacctcagc attatccttc aattcacata acggcatatg 660
aaaacgatga acgggtacct ctgaaaggaa ttgtaagtta tactgagaaa ctcaaggag 720
ccatgcgcca gcatgctaag gacacagggt aaggctatca gaccctaat attattctag 780
atattcagcc tggaggcaat catgtaattg aggtattctc caaaaagatt acagcccaaa 840
ttaaattcct gtacgaggaa cttggacttg acagcaccag tgttttcgag gatcttaaga 900
aatacctgaa attctgaaac actgcattca actgggaatt ggaaacacac tgaaatattt 960
catagtctta cttccaattg agttagcaaa aaaaaaatta ataacttgag acttttaagt 1020
tattaatttt ttaaaatgtg cttctccatc taaattttgc ttagtctaca tctcacttgc 1080
ttatactatt ctctccattg atgcacatgc ccattaacct aggaagtag ttttcaaatc 1140
atgtccttta gaaggatgtg gagtagaggg aagggaagga ttggtgatag cagagctcca 1200
ggcctccctt ccagtcagaa cagttgagca gtttacaat tagtgtcctg cctctttgct 1260
agcaaatgct tttagacact gtggcagtg gtcacctct aatttctatg actgcatttt 1320
aagggaagaa ataaaattct tcccttaaaa attcgttaaa gtttttgaat aatctggggg 1380
cctaattgtg tctggtcatc cctgattgat gctatctgaa taaagttaaa ggtcccttt 1439

```

&lt;210&gt; 52

&lt;211&gt; 1842

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 52

```

tttttttttt tttttttttt tttttttttt gaaagccacc agatgggggc aactgcccac 60
tttattagac aataggtggc ccacaggtct cctcagggcc caccctcaca gtagacacac 120
cacacaggac aacagaagga acctgctacc cagtctctctg tccctgggat tctggctctg 180
ggacagggtg gaaagaggaa ggtggggggt ggcctcacag aggcctcata aatacaaggt 240
cactggccag ggtgcaaaag gagcgagca gcaggactc ggggaggatg acctgtctta 300
gagtggccca tgtcacgcag cctcctgtgt gggagggggc ctgggctcgg catccaagcg 360
gcacagggga ctgtcataca ccatctgcag gttcaccttg tggccacca gctcccggat 420
attgttgatg ccatatttga tcatcgttgg gcgctccagg gagaggcccc aggcaatgac 480

```

```

cgacacgttc tcgggaagcc ccattgggcag cagcatctct ggacggaaga ccccgagtt 540
tcgcacctcc acccacttct tcaggccttg gtggtagctg aacacctcca tgctgggctc 600
tgtgtatggg ttgtaggtcg gcttgaagcg gagttgctg ataccagct tggtgaagaa 660
ctcccgca acgcccata ggtggcccaa ggtgagacca tgatccgcca ccacgccc 720
gatctggtgg aactcagcca ggtgctgggc gtccagggtc tcattccgga atacgcggtc 780
gatggagaag tacttgaccg gagtgaaggg cttcttctgg gcaaggcggg agagcgcacg 840
ggcgctggct gatgtggtgt ggttcgcag taggttttcc cgggctcgt ccagcttcca 900
gttatacttg taccctgtg agccgtagcc gccctgagag tgggtccgct tgaccgctg 960
gacatagtcc attgggagct gcagggcctc cgctggatct cgaaggaga aggtgtcgtg 1020
ctgggtcagg gctgggtgct gctgggctg gaagaggcg tcaaagtcc agaaggagct 1080
ctcaatgaag ttatcagtc gcatctcggt gaacccatc tcaggaga tctgtcggaa 1140
ctgggagcgg accttagca gcgggtgaag gtggcgcgtg tcggggagga caccgtgggc 1200
caagaagttg tagggcttga agggccggtc ccgccaagag ccactggaga tcatctctgg 1260
gtcagctct gtctcttctg tggagatgct ggtactaaag gcaactgcct tgctcaccca 1320
gtaggtcctc agagtcactt cagccaacag cttctcttcc ctcagctcgc tctctctctt 1380
ctccccagc ttctcagcct gtccccccg gaccagctgg agccgcgct gcacctcctc 1440
ctccatgctg tccaccactc ggaacacccg gggcccgctc gccgactct tgtccacccg 1500
aatccacttg ttggacatgg ccttgctgaa gccactttg ccactgggca gtcgcataag 1560
ctcgctcttg gccaggccct ctgggggaat gcttcgaaac acacgggcct catggctgcc 1620
ctcccgggca atctctctgc cctccgcagt aagctcccag tgcttggtgg accgaagttc 1680
agcctcgatg acctcgccca gcgcctgaag gctcttcacg gcgccacca ccgcctgggtg 1740
ctccatgccc agctcagccg ccaactcggc gctgtccagg ccgcatcag acgcctccag 1800
ccgcccggagc agcagttccg ccacctgacc atccgcatg ac 1842

```

&lt;210&gt; 53

&lt;211&gt; 1434

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 53

```

cgctctccca caccactggc accaggcccc ggacaccgc tctgctgcag gagaatggct 60
actcatcaca cgctgtggat gggactggcc ctgctggggg tgctgggcca cctgcaggca 120
gcaccggagg ccaggtctc cgtgcagccc aacttcagc aggacaagtt cctggggcgc 180
tggttcagcg cgggcctcgc ctccaactcg agctggctcc gggagaagaa ggcggcgttg 240
tccatgtgca agtctgtggt gggccctgcc acggatgggt gcctcaacct gacctccacc 300
ttcctcagga aaaaccagt tgagaccgga accatgctgc tgcagccgc ggggtccctc 360
ggctcctaca gctaccggag tccccgtgag tggggcctca ccggccccc gggcccagcc 420
tggggggcag acttgccggg acgactctgg gccagcccc tgccggggag atccatgggg 480
tgggaggtga tggctgcccc accagcgtca gaggcaagg ccaggcctgg gcgtgactac 540
ccatgcacaa gtgttaggga cagagagacc cttcctccag ggggttggat cctctctgga 600
gcccaccatt gtctgtcag gccccttccc tgccctctgg agttttccc acataagcag 660
cccccaagg cccctccata tgcctcctcc caattctcct ccccaggacc cagggggttc 720
ctcactccca cctggggaat ggctcccacg gggaaacctc ttcacttccg gttctggcag 780
cgactttctg ggctgcacca ggaatcctgg tttctgagc ctggctcccc cagattcttg 840
tttggggaca ggttcacag gctgtgcagg cgagagcagg gcaactggctg gagagcagcc 900
gggtggggga gcatcccggg ccagccgagg ggctgagtgc ccccaaagg cccaggtgca 960
ccccctccct gaagcagagg tgaggtttgg ggggctgagt ccccgacagg gttgtctctt 1020
gggttcccag actggggcag cacctactcc gtgtcagtgg tggagaccga ctacgaccag 1080
tacgcgctgc tgtacagcca gggcagcaag ggccctggcg aggacttccg catggccacc 1140
ctctacagcc gaaccagac cccagggtc gagttaaagg agaaattcac cgcctctctg 1200
aaggcccagg gcttcacaga ggataccatt gtcttctctg cccaaaccga taagtgcatt 1260
acggaacaat aggactcccc agggctgaag ctgggatccc ggccagccag gtgaccccca 1320
cgctctggat gtctctgctc tgttctctcc ccgagccct gcccggctc cccgccaag 1380
caacctgccc cactcgggct tcatcctgca caataaactc cggaagcaag tgag 1434

```

&lt;210&gt; 54

&lt;211&gt; 1545

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 54

```

ttgagatata actgaagctt tatctggagt gggggaatgg ggggtgtggtc agttggggca 60
cccaaagaca accatgctct cgtgaaggc ccgaggtcc tggcattgtt tctggttctc 120
ttcgtcttgg cattcgtcct cctcaggcca gtgtccacc caagtgtcct tcccgatgat 180

```

```

gtagctgagg ttgggcttct ctccccagaa atcggaggag agaccccaca tgaggtagtg 240
tttcttctcc tccagcttca gggcttctct gcaacttgatg gggctgatga acgtgcgctg 300
ctgtccaacc tgcacctcat ccgagcctga cttgatggtc tgctcaatgg ccatgatgta 360
ctcgtcaaag tcattggaca gctgaacctt gaccagtcgg gtcttgatga catagtccac 420
tcctggctca caggccttgt ccagccgttc ttccagggtg accttgatcat ccgaactttg 480
tatgaagcaa ttctcctcag cacagcggca cagttcatca cggcagagct tgttcagctt 540
tccatcctcc ttttcgggat ggtagaaccg ggtacagctt tcctccaggt tgaataggc 600
gtagaccttg actgctccag gctggataag ctctacatta aagtattggg gaactttgaa 660
agctagacag tcatcctcag agtgtgagac cttgtccagg tagatgatga ggggtttcct 720
atcggagaag gctttgtcca gctcatactt ggagatgtat ctgtcaacac cattggccag 780
ctgcttcagg tcatctgtgt ctggagcaaa gccagtcac atggatatgt ccaatataga 840
catagtggca tcctgggtct cccggtaacct ggtacagatc tcaaggatca tagtgttctt 900
ggcatcctga ggcctctttt ctgtttccgg tgctggtttt atgggtgacct tgaggtcgaa 960
tttattacag gtgagttgat ctttggcctt agcatggtag attgtcacca ccgacaaggt 1020
gccttggcct tttccttcag ctgtgactgt gaaacctca tttccttgg tctcttctga 1080
tcgcaggagg ctggcagatt ccagtggtg acggtgggtg atcttggagc tgcggctggg 1140
cagttggagg gacacatcaa ggttcagttc ctggtgggtc ggggcgtcct tttggtattg 1200
agccaaggct tggaaacacca tgaagggtgc ctgggtagag ccatagccac caccgtagta 1260
tctctgttca ttgagccaac gcacgacggg aggcacaaag tcaaagtctt ttagctgcag 1320
tagggccaag agggcatagg atgtggcctc cactgttag agctgcttac cagggtcctc 1380
ccagcgggtc ttatcttttg ctgtggtcag aaattgttta agaagaggcc ccttcagcct 1440
gcccactctg gccagagcat agccagcaat ggcacagtg taggatctct gtaggttcat 1500
gtagtggct tcaaggaagt ctctgcttt agttagggc tcttt 1545

```

&lt;210&gt; 55

&lt;211&gt; 1352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 55

```

cgagactgcg cggccgttgg gcgtgcagcg ggcgcagtcg gcggacgagg ggcccccggg 60
agttgctgga ctgagacatg agcctccaac tgtgtggttg ggctcggtag cacatcgtgg 120
gacttgggtg tgcgcccaca gatgggttgg ccctgcagtg accagagcag cccaagccgc 180
caccatggtg aaattgctag tggccaaaat cctgtgcatg gtgggcgtgt tcttcttcat 240
gctgctcggc tcctctctcc ccgtgaagat catcgagaca gatattgaga aggcccatcg 300
ctcgaaaaag atcctctctc tctgcaacac ctttggaggg ggggtgtttc tggccacgtg 360
cttcaacgct ctgctgcccg ctgtgaggga aaagctccag aaggctcctga gcctcggcca 420
catcagcacc gactaccgct tggccgaaac catcctcctg ctgggcttct tcatgaccgt 480
cttctctggg cagctgatcc tgaccttccg caaggagaag ccgtccttca tcgacctgga 540
gaccttcaac gccggatcgg acgtgggcag cgactcggag tatgagagcc ccttcatggg 600
gggcgcgcgg ggccacgcgc tgtacgtgga gcccacggc cacggcccca gcctgagcgt 660
gcagggcctc tcgcgcgcga gccccgtgcg cctgctcagc ctggccttcg cgtgctcggc 720
ccactcggtc tttgagggcc tggccctggg cctgcaggag gagggggaga aagtgggtgag 780
cctgttcgtg ggggtggccg tccacgagac actggtggcc gtggcccttg gcatcagcat 840
ggcccgaggt gccatgcccc tgcgggacgc ggccaagctg gcggtcaccg tgagcgccat 900
gateccccct ggcacgcggc tgggcctggg cattgagagc gccagggcg tgccgggcag 960
cgtggcgtcc gtgctgctgc agggcctggc gggcggaacc tctcttctca tcaccttct 1020
ggagatcctg gccaaaggagc tggaggagaa gagtaccgt ctgctcaagg tctcttctct 1080
ggtgctggga acaccgtcct ggcgggaatg gtcttctca agtgggtgag ggccttgcca 1140
ttgtcctcgc cgcggagcc cgcggggagc cccggnggg acacaggccg cgtccccctg 1200
ccgggcgtcc cccaagagcg agcactgtgg cctggggcca ccactgtgc acaaggggcc 1260
tcccgggacc aggnrtgtgcc cccgatccta cacttgagc ctcagagcat tgatactttt 1320
taaaatactt ctttctctta aaagtctttc cc 1352

```

&lt;210&gt; 56

&lt;211&gt; 2756

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 56

```

tgtgggatgg gaagtgaagc cccagcgagc ggctgcagcg gggccgtgag gagcagccag 60
cgggaggcgg cggcgagtcg gtgagcagct gggaagagca gaaccggggc ggagcacctg 120
caggcgcggg cggcgggccc accatggcga ttgcgaagaa aagcaccaag agccccccag 180
tgctgagcca cgaattcgtc ctgcagaatc acgcggacat cgtctcctgt gtggcgatgg 240

```

```

tcttcctgct ggggctcatg tttgagataa cggcaaaaagc ttctatcatt tttgttactc 300
ttcagtacaa tgtcaccctc ccagcaacag aagaacaagc tactgaatca gtgtcccttt 360
attactatgg catcaaagat ttggctactg ttttcttcta catgctagtg gcgataatta 420
ttcatgccgt aattcaagag tatatgttgg ataaaaattaa caggcgaatg cactttctcca 480
aaacaaaaca cagcaagttt aatgaatctg gtcagcttag tgcgttctac ctttttgctt 540
gtgtttgggg cacattcatt ctcatctctg aaaactacat ctcagacca actatcttat 600
ggagggctta tcccataac ctgatgacat tccaaatgaa gtttttctac atatcacagc 660
tggcttactg gcttcctgct tttcctgaac tctacttcca gaaaaccaa aaagaagata 720
ttcctcgtca gcttgtctac attggtcttt acctcttcca cattgctgga gcttaccttt 780
tgaacttgaa tcacttagga cttgttcttc tgggtctaca ttattttggg gaatttcttt 840
tccacatttc cgcctgttt tatttttagca atgaaaagta tcagaaagga ttttctctgt 900
gggcagttct ttttgttttg ggaagacttc tgacctttaa ttctttcagt actgactgtt 960
ggtttggggc ttgcaagagc agaaaatcag aagctggatt tcagtactgg aaacttcaat 1020
gtgttagctg ttgaatcgc tgttctggca tccatttgcg ttactcaggc atttatgatg 1080
tggaaagtta ttaattttca gcttcgaagg tggagggaac attctgcttt tcaggcacca 1140
gctgtgaaga agaaaccaac agtaactaaa ggcagatctt ctaaaaaagg aacagaaaat 1200
gggtgtgaatg gaacattaac ttcaaatgta gcagactctc cccggaataa aaaagagaaa 1260
tcttcataat gaattataaa ctaattgatt aatgtcccca aagaaatctg ctttctacta 1320
tatctttcag cattagagat ttttctgttc ttgaaaatac agtctgtgct ctttgatttt 1380
tgctattgta cggtttcatg cattttttta aagggcattt gaggggagga ttattgctat 1440
gaatgaaaaa aatatttttag cttagactaa gctacctgcc ttcaaaatag tttagggacc 1500
accaccatat tttattttgt ttttattttt gaacattttt ctaatgattt ggagagaaaa 1560
ctattttaca aaattccaca tatcagtgat acaatttctt gctgtcacca atttttata 1620
atagcagagt ggcctgttct aagaaggcca tattttttta gttatctttc agggtaacat 1680
ggaaatacta taaagttgga tgtcaaacct taatatgttt tcagtgttct ctaatttttt 1740
ggaatttttg tagactttac acctggaaaa aaagatttgt aaaatcaccc gaacaattgt 1800
gtgctttatt ttataggtag tgggtatttag tattacatcc ccatttttaa aacaaaaaca 1860
taataatggt tacaacacgt ggagttttac taacatacat attaaatcaa agtatattct 1920
taaaagtact tgtgaagtaa aatctttctt gtgcattttc aatacttgta aactggaaat 1980
cagaaaaat tttactatgaa caggaaaaatc tgacatatag ccctttttga tatgtttatt 2040
aataatgatt cttaatgggg ctcataataa gtttaatatg cacagcatct tagaaaaagt 2100
taacctgcaa acctttttaa aacataatgc ctacttgatt tatatctata aaaagactga 2160
caggtaatta tatttggaac acatttaatg cactaacttt aaagaaattg aaaattcagg 2220
tggataaata gtcttataaa agacaatgtg ctttatgtta tacctatagc tttggtccca 2280
tctttaattg agaaacattt atctgtataa aacataatgt tggataaata tatatatata 2340
tatttgtatc gctacagaaa ggctctaaaa agcatttgag gaaaatattt gggtcccttt 2400
tctataatca tcttttaaga ttcttatagc tacatttggt ttattcatca ttttacagt 2460
atataatatt ttcttttcag tgttcacatc ttgttcccca tttctcactt gtgtcaccag 2520
ctgtttgtgc catttttagt gtaaaagtgt cagacctatt agatctgcag ttaagtgtgc 2580
catgctgcta ggaaattgtc ctttttcttt ctagtgttta acctacttcc tggaaaaagt 2640
agtagctctc tgtagcatta tggagtttca gtggaaccaa atttttgcca ttaaaaactg 2700
gcattatact gaactataca ttgagaaatc aatcaaaata aaaattttta ctttcc 2756

```

&lt;210&gt; 57

&lt;211&gt; 1499

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 57

```

ttttaaagtt acaagattct ttttaatat ttcacaatgtt aaaactaaaa ctgagctcta 60
ggctatgtgt gtaagtaaat ctagaacaca aaagggttaa ataagatttt ctctttttaa 120
gatacaagaa ttttaagcttt ccttacattt aacaaaacttc acagaacaga tactgcaggg 180
gaacaagccc cacccccac ccccccacg cctaaagtcag gaagcgaaca tgggcttcgc 240
tccccaggc cagctccctt gggctccttc ccatggctgc ctccacgcag caggcagagg 300
agggggcggg gggccctggg gagggcgggg aagggtcgc acagcctctt cgggaccaga 360
gcttggcgga agcctatggg gggctgcctc actgaggatg gcccgtagg tggccaaggg 420
ctgtggcttg acagcagtg taaacgctgg gcagacctgg cccctctgcc ctgggttggc 480
ctagagcaag acaccgtctt gggctcctga gcaagaatta aggctgggga ttttgcagcg 540
ggttccactc tgggtgggtg aggggtggga gagcatgact tcctatttca gtacgtcgga 600
tcaaaaaaca tttgcagttg caggtgttca gctgttaatt tgcagacaga gttgaacat 660
ttgttgtttt ataaaaagga aagttgctgg gttaaactat tccagtagcc tatgtgtggg 720
cagatccacg ctgcctccgc aggggcctcc tgccctcacc cacctggatc tgatgcgga 780
ctaggaccac tgggactgct caccctgect gggctttcaa gggaatcctg atcctgtcca 840
cccacccca gccccacctg actggtagtg atttccctaac atggggcaac caggccacc 900
cccaccttc cccacctggc gtgcgcagtt gcagctgctg aaatcctctg tgaacatgag 960

```



```

ggggcacagg tggagaaatg taccctcagg cctcaccta ccagagcaaa tatcactctc 1020
ggagctgggc cacagccaca aaccgctgtt ctagacagat ccaaaccac tgtccctggg 1080
acgtatgctg ccttccctta ctaaacttgc tatatggtag atgtggactg ggtgtccttg 1140
gactatgggg ctgcatagaa acgagaatgg aggccacgac atcatcctct tggcccttgg 1200
aggcacgggc ggtccagct ggaaggcgag agcccggtgg cggcagcttc cccagctgct 1260
gctcccagca cttctactga ttcttgttgg ctatgaaatg tctttttaa aaactcccaa 1320
tatagaaatc tggctgcaga ggccagtgtg cagaccagc caccgctgtg tgctgccatt 1380
cgccacatct ggtccatgcc agatccctgc actggcgaat ggcagaccag agccggcgga 1440
ggcgggggcac tctggctgct tctcgtgacc ttggatcctg tgtagaaaag gcggggaaa 1499

```

&lt;210&gt; 58

&lt;211&gt; 1463

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 58

```

ttttttttta acaattagga atttttttatc gttatagatg ttgttaaagg actccagtag 60
caaagatcaa agtctccgaa ttttgccttt ggagaagggg gtttcatttc agacatcaaa 120
ggtaaggctc tcaagtcaat ttatgctctg ctgggttgag tcagtcagga tacaattaa 180
ggtccatata tttcagtgc aagaaggaaa cggttatgta aatacacaag tattaacatc 240
aatctgtatt aaattatgta aacatatata tcttctgagg tcagcacata gatcctcttc 300
tttgagcaga gctctactga agcattgtct gaatctgttt ggaagttgat tcatcgttca 360
agtgtcttgt agtgaacctg agggcattta gcagccctc cactctgtct ggggcctgct 420
ccttcaaaac ttttatgcag cctttcatat cgatcttggg tgtcttgag aaagctccca 480
caggggtggac atggtcatag aggatgatga ctcccacat caccctcatg cagaacatca 540
gggtctcttc actcgtaaac ctacttctgt actccggagt ttccagcatg actttacaga 600
cacttgtcat tgtgctgagg cagtctgtgg tgttctctat tggcagagtt tttttttcag 660
agacaaagtg cattgtggca ttgctaaggg ttttcagcat tggcgtggct tctgcataga 720
agagggacat tcgattggcc atctcattat tgacttcatt ctcaatgtct aggtgcatgt 780
tgttgatgct gttgcgactg attgttcttc tgtagtagct gaagtcattc tgaatagccg 840
ggttcctcat cttcagctca tccaatcgaa gggtaaaatg taaaatttcg gcaaactcct 900
ttgccagggc ctgttccctt tccagggtgtt ggggttggtg gtaggggtgga caagtcagag 960
attccaataa actctgaaga gctttttcta gtctaaggga aaactcgtaa aatctcttta 1020
gcctcacaac aagagggcac accgcattcc aagcttttct ttgaagctga atgtcattgg 1080
gattttgaat tgcattctcg atctctgggc ctgcgccttt gtaagcctgc aggtctgcaa 1140
ggatgctctc agaactctga aggacggcgc tgatctggtt ccagatttct ctctctcctt 1200
ctgtaggctg agcattttca aaatccagga aaaagtgtgg atagttttca atttccctgg 1260
taaggacttt gagcaggttt cccatcccag caaacctgga aatatctcct gtgattcagt 1320
ttcaccaatc caggctgatg gtagaacca gcttagctgc tgtctggcca aagtaagttg 1380
gacttcccaa atcaggacgg tggcctccta gagtctgtga gcttttctgt ccttaagatg 1440
gtgtaccctg cgagtcgccg aaa 1463

```

&lt;210&gt; 59

&lt;211&gt; 614

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 59

```

gctttttttt tttttttttt tttttttttt ttgttaaatt tttttatatt aaaaagtggc 60
atgaactttt tatgtagaac aaaaatcttg ggaaggcaaa attggataaa accattaaaa 120
cagaaataga gtgcttcaaa tgaatcccat caccttgtag tgtcccttat taacagtctc 180
taaaccaata ccagatacca gaacagtcca tctaaagaa cgagcagcag tccagggcct 240
ccacgtact tcatgcaata actgttttaa ttaagccagc aggacctgtt tctttgtat 300
aagctacaac ttctgaagca ttacagttcc ttagcacggt tgctcaatca cagcacttgg 360
agcacctctc tgcataaagg caaacaaaac attgcctaag gaccctgcaa tgccaccctt 420
ggaggcttac aaaacagtag ttaaaagttt cggagtgtgc accacattgc cagcaatggg 480
atgtgtcaca atagcagatg tcaaaagagt taagctaata tttctcttta aagtacatct 540
gaaatagaaa aatctttaat atacaccatt tgtaaacaaa attgcacttg attttgcttt 600
tttaacctta gaaa 614

```

&lt;210&gt; 60

&lt;211&gt; 2160

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 60

acatagacct gtttctcgac tgttaacaga tgggatcatg agagttggat ctactgcac 60  
 aaagaaacta tcagaaaagt tggtagcaga atgggtttct caggcagctg atggtaacaa 120  
 tgaagcattt tctaaactca agctttatgc acaagtctgc agatatgacc taggtcctta 180  
 tcttgcttcc ctgccattgg acagctctct actttccag ccaaatttag ttgcccctac 240  
 aagtcagttt ttgattactc cacctcagat gacaaatact ggaaatgcta atactccatc 300  
 tgccacctta gcatctgcag cgagcagcac tatgacagtg acttcagggtg ttgccatata 360  
 tacttcagtt gccacagcta attcaacttt gaccacagct tcaacttcat ctccatcatc 420  
 ctccaacttg aatagtggag tatcatcaaa taaactacct tcgtttccac cctttggcag 480  
 tatgaacagt aatgctgcag gatccatgtc tacacaagca aatacagttc agagtgggtca 540  
 gctaggaggg caacagacat cagctctaca gacagctggg atttctggag aatcatcttc 600  
 acttcccact cagccgcatc ctgatgtgtc tgaaagcacg atggatcggg ataaagtggg 660  
 aatccccaca gatgtgatt cacatgcagt cacgtatcca cctgcaattg ttgtttatat 720  
 aattgatcct ttacatacag aaaatacaga cgagagcact aactcttcta gtgtgtggac 780  
 attggggcta ctctgatgct ttctagaaat ggtccagact ctccctcctc atatcaagag 840  
 tactgtttct gtacagatta ttcttgttca gtacctgttg caacctgtga agcatgaaga 900  
 tagagaaatc tatccccagc atttaaaatc cctggctttt tcggccttta ccagtgctg 960  
 gaggccactt ccaacatcaa ccaatgtgaa aacattgact ggctttgggt caggtttagc 1020  
 catggaaact gcccttagaa gtccctgatag accagagtgat attcagcttt atgcacctcc 1080  
 ttttattctg gctccagtga aggacaaaca gacagagcta ggagaaacat ttggagaagc 1140  
 tggacagaaa tataatgttc tttttgtggg atactgttta tcacatgatc aaagggtgat 1200  
 tcttgcatct tgcacagatc tatatggaga acttttagaa acttgatca ttaacatcga 1260  
 tgttccaaat agggctcgtc ggaaaaaaag ttctgctaga aaatttgggt tacagaaact 1320  
 ttgggagtggt tgcctaggac ttgtacaaat gagttcattg ccatggagag ttgtaattgg 1380  
 tcgtctagga aggattgggt atggagaatt gaaagattgg agctgtttgc tgagtcgtcg 1440  
 aaacttgca tctctaagta aaaggctcaa agacatgtgt agaatgtgtg gtatatctgc 1500  
 tgcagactcc cctagcattc tcagtgtctg cttggtggca atggagccgc aaggctcttt 1560  
 tgttattatg ccagattctg tgtcaactgg ttctgtattt ggaagaagca cgaactctaa 1620  
 tatgcagaca tctcagctaa ataccaccaca ggatacatca tgtactcata tacttgtgtt 1680  
 tctacttct gcttctgtgc aagtagcttc agctacttat accactgaaa atttggattt 1740  
 agctttcaat cccaacaatg atggagcaga tggaaatgggt atctttgatt tgttagacac 1800  
 aggagatgat cttgaccctg atatoattaa tatccttctt gcttctccaa ctggttctcc 1860  
 tgtacattct ccaggatctc attaccacca tggaggtgat gcgggcaagg gtcagagtac 1920  
 tgatcggcta ctatcaacag aacctcatga ggaagtacct aatattcttc agcaaccatt 1980  
 ggcccttgggt tactttgtat caactgccaa agcaggtcca ttacctgact ggttctgggt 2040  
 agcatgtcct caagcacaat atcagtgctc cctttttctt aaggcctctt tgcacctcca 2100  
 cgtgccttca gtgcaatctg acgagctgct tcacagtaaa cactcccacc accacgaaac 2160

&lt;210&gt; 61

&lt;211&gt; 1788

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 61

ggtccttctg ttgatcctgt cagtcttact ttgaaagaa gatgtccgtg ggagtgcaca 60  
 gtccagttag agggaggtgg tggctcacat gctgggtgac atcattattg gagctctctt 120  
 ttctgttcat caccagccta ctgtggacga agttcatgag aggaagtgtg gggcagtcctg 180  
 tgaacagtat ggcattcaga gagtggaggc catgctgcat accctggaaa ggatcaattc 240  
 agaccccaca ctcttgccca acatcacact gggctgtgag ataagggatt cctgctggca 300  
 ttcggtgtgt gccctagagc agagcattga gttcataaga gattccctca tttcttcgga 360  
 agaggaagag ggettggtat gctctgtgga tggctcctcc tcttcttcc gctccaagaa 420  
 gcccatagta ggggtcattg ggcctgggtc cagtcttcta gccattcagg tccagaattt 480  
 gctccagctt ttcaacatac ctacagattg ttactcagca accatcatgg atctgagtga 540  
 caagactctg ttcaaatatt tcatgagggt tgtgccttca gatgctcagc aggcaagggtc 600  
 catggtggac atagtgaaga ggtacaactg gacctatgta tcagccgtac acacagaagg 660  
 caactatgga gaaagtggga tggagcctt caaagatatg tcagcgaagg aagggtattg 720  
 catcgccac tcttacaata tctacagtaa tgcaggggag cagagctttg ataagctgct 780  
 gaagaagctc acaagtcaact tgcccaggc ccgggtgggt gcctacttct gtgagggtcat 840  
 gacggtgaga ggtctgctga tggccatgag gcgcctgggt ctagtgggag aatttctgct 900  
 tctgggcagg gaaccagatg ccacttttat tgagatctca aagaacagca tccatgggga 960  
 agacagaaga aaatgccaa gtcgcttctt tcaggggttt ggagacatat tacacagaag 1020  
 tgagtcctgt ctgctgcaca tgcccagcc tctgaatcta gagctcagtt cagggtccat 1080  
 cactggactg agggacaggc tcatctaatt ctgagtggat attactctgc attataatga 1140

```

agccaacagt catatcttct gatgtggaga tttgagaagc atttgtattg gatgtgaccg 1200
tcaaaatgcg ccccatatca ctgcaacacc tacaagtttt cttgcatggg gtgtcagac 1260
tttccctct ggcaagtatt actgggaggt ccatgtggg gactcttga attgggcttt 1320
cgggtgttgt aataagtact ggaaagggaa gaatcagaat ggcaatata atggagagga 1380
gggactottt agtcttggga ttgttaagaa cgacattcag tgcagtctct ttaccacctc 1440
cccagttaca ctgcagtatg tcccaagacc taccaacat gtaggattat tcctggattg 1500
tgaagctaga actgtgagct tegtgtatgt taatcaaagc tcccctatat acaccatccc 1560
taattgtctc ttctcacctc ctctcaggcc tatcttttgc tgtattcatc tctgaccaga 1620
gacaaatcag aaatgtgttt atctgtgtgt ggaacccctt tatcccataa agccctcttc 1680
cttgtgcctt atcaaacagg acaaataggt tctgttttat gtcttgaatt gcattctaatt 1740
gttattaaaa ctcatcttatt gtgttactat taaatgtggg aaaaccac 1788

```

&lt;210&gt; 62

&lt;211&gt; 1753

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 62

```

agctccggtg ctcccttct aactccactg gctgcggcat ctgtgggaaa agtgtggctg 60
ggctcttcgag gagccgcacc aatggcttcc gtgtgtctct acgaaagcct ggtccacgcc 120
gtggccggag ccgtgggaag cgtgacagca atgacagtgt tttttccctt ggatacagct 180
agacttcgac ttccaggttga tgagaaaaga aaatccaaaa ctacacacat ggtgtcctg 240
gagatcatta aagaagaagg actcctggca ccatatcgag ggtggtttcc agtgatttcc 300
agtctctgct gctccaattt tgtctatttc tacactttta atagcctcaa agcactctgg 360
gtcaaaggtc aacattctac cactggaaaa gatctggtag ttgggtttgt tgcaggagtg 420
gttaatgtgt tgctaacaac tccactctgg gtggtaaaca ccagactgaa gcttcaagga 480
gcaaaattta ggaatgaaga cattgtacca acaaactaca aaggatcat tgatgctttt 540
catcagatca ttgcgatga aggaatctcg gctttatgga atggcacatt tccctcattg 600
ctgttggctc tcaatcctgc catccagttc atgttttatg aagggtttaa acggcagctt 660
ttaaagaaac ggatgaagct ttcttccttg gatgtgttca tcattggtgc agtagccaaa 720
gcgattgcca ccacgggtgac ctatccctg cagacgggtac agtcaattct gaggtttggg 780
cgtcatagac taaaccacaga aaacagaaca ttgggaagtc ttccggaatat tctctatctt 840
cttcaccaac gagtaagacg ttttggata atgggactct acaaaggcct tgaagccaaa 900
ctgctgcaga cagtcctcac tgcgtctctc gacaccaaac actgagacgc cttcccata 1020
gccaccttca cagttatggg gctgaagcgt gacaccaaac actgagacgc cttcccata 1080
aaaattccga agatgctcaa gagggaggtt tctcctgag tgaagagaag tgattctccc 1140
ttgactctgg ctctgccac cacaatgtt accctcattg gcttgaaaag catccaaggg 1200
tgcacaagga gtatggccaa ctggacctgt tgtcacotta attgtcatgc tggcatgggt 1260
gcattttggg gtggccaggt ggccaatgt gaaagaaaca ttgctgaaaa cctaaaaatg 1320
aaagtttgtg agtgtttatt ggttttctta agagaatgg actattttgc tctcatgtgt 1380
aatgttttct atttaaactt ttcttaata taccagctgt tctctttccc tgaactctcc 1440
cccaggttct aggcacaatt taataacatg taattctcct caaatacttt tgtatgtcgc 1500
agggttggtg ttttctccc taaaactaac attagggtg tgccacgggc atgactttat 1560
ttttgttggg ctttttttcc cctgcttaag gagaggtgtc ttttttggat atgagctatt 1620
tattttgtga aatgaaaatt gttcacccaa atgattctct tataaactat ttgtaaatgt 1680
cacttattca ttagtgtttg acataatttt tagaatattt attttgaatc aatcctttca 1740
ttacgaaaga cttgaagttt tgtgtccatt cttacaagcc ctggtcagtc aagtcccaat 1788
aatggtcag cac

```

&lt;210&gt; 63

&lt;211&gt; 1244

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 63

```

aggggtggtaa ccaggaccat ggtgaggaca gagaacgggt ctgagccggg tgcctccatg 60
cctcctccat tctcagtggg gaacggaacc agcttctctg aaaatgtcac tccggccttg 120
ggtaccctgc aggagatgct gagctttgag gagactgtac ccgtgcctgg ctccgccaat 180
ggcatcaacg ccctgggcct cgtggtcttc tctgtggcct ttgggctggg cattggtggc 240
atgaaacaca agggcagagt cctcagggac ttcttcgaca gcctcaatga ggctattatg 300
aggctgggtg gcatcattat ctggtatgca cctgtgggca tccgtttcct gattgctggg 360
aagattctgg agatggaaga catggccgtc ctgggggggc agctgggcat gtacaccctg 420
accgtcatcg tgggcctgtt cctccatgcc ggcattgtcc tttccctcat ctacttctc 480
gtcactcacc ggaacccctt ccccttcatt gggggcatgc tacaagccct catcacgct 540

```

```

atgggcacgt cttccagctc ggcaacgctg cccatcacct tccgctgcct ggaggagggc 600
ctgggtgtgg accgccgcat caccaggttc gtctgcccg tgggcgccac ggtcaacatg 660
gatggcactg ccctctacga ggccctggct gccatcttca ttgctcaagt taacaactac 720
gagctcaacc tgggtcagat cacaaccatc agcatcacgg ccacagcagc cagtgttggg 780
gctgctggca tccccagggc ggggtctggtc accatgggtca ttgtgcttac gtcggtcggc 840
ttgccacagg aagacatcac gctcatcatt gccgtggact gggtccttga cggcttcgc 900
acaatgacca acgtactggg ggactcaatt ggagcggccg tcatcgagca cttgtctcag 960
cgggagctgg agcttcagga agctgagctt accctcccca gcctggggaa accctacaag 1020
tcctcatgg caccaggagaa gggggcatcc cggggacggg gaggcaacga gagtgtatg 1080
tgaggggct ccagctctgc ccccagaga ggagggagg gggctgggga ggggagctct 1140
ggtgacacat ctgttgcca actgaccgtg ggctgaacac acgttctgct tgactcattt 1200
aggggggagg gaaaagtaaa taaaggagca ggaatgaaat ggggt 1244

```

&lt;210&gt; 64

&lt;211&gt; 1725

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 64

```

agaatggaga ccaaactgt gataacctgt ctcaaaaccc tcctcatcat ctactccttc 60
gtcttctgga tcaactgggt gatcctgctg gctgttggag tctggggcaa acttactctg 120
ggcacctata tctcccttat tgccgagaac tccacaaatg ctccctatgt gctcatcgga 180
actggcacca ctattgttgt ctttggcctg tttggatgct ttgtacatg tcgtggtagc 240
ccatggatgc tgaactgta tgccatgttt ctgtccctgg tgttccctgg tgagctcgta 300
gctggcattt cagggtttgt gtttcgtcat gagatcaagg acaccttcct gaggacttac 360
acggacgcta tgagactta caatggcaat gatgagagga gccgggcagt ggaccatgtg 420
cagcgcagcc tgagctgctg tgggtgtcag aactacacca actggagcac cagccctac 480
ttcttgaggc atggcatccc cccagctgc tgcatgaacg aaactgattg taatccccag 540
gatctacaca atctgactgt ggccgccacc aaagttaacc agaaggggtg ttatgatctg 600
gtaactagtt tcatggagac taacatggga atcatcgctg gagtggcgtt tggaatcgca 660
ttctcccagt taattggcat gctgctggcc tgctgtctgt cccggttcat caccggccaat 720
cagtatgaga tgggtgaagg agaagtctt caagaatgac ggaataagag acctgtttta 780
aaaaggaact gcagcaatct ttgaaagact tccaaagaat gttagagcac agtacataat 840
acacttgccc tgctccctct accccttacc ccacaacgtg caactgacac tcccaccag 900
tctctgtccc acccttcagc ccacgtcacg tgtagtgtcc attttgtgaa gccctgttgt 960
gccacagagt gtagccaggt cccctgcag ctagtccctag tgaacctcac cccgaggccc 1020
tgcatgggcc agccctcca tctgtacttg gtccaactgc aactcatcat cggtgactgg 1080
ttatcacacc atcgctggcc cctttgggcc ctgcatgtag tgtgggaggc tctgtttagc 1140
tctcactgt ggtaaatgcc acacaccttt aagtagataa gcagacgata gttatctgtt 1200
cttttgactt aatctcattt gggttgattt tccctctact aaggctttcc taccttcttc 1260
aggctgccta agacatgtaa cgaaacactt caataattgt ccatgaggag aaaaaagca 1320
tgtgtcatgc atgaaggaaa ctgaacttga ggtggcctcc ttgcttgta catacctggg 1380
tatgttagg cagtttagtg catctttgcc tctcagttga aacctgtata acctgttac 1440
aaagctgtgt tgttgcttct tgtgaaggcc atgatatttt gtttttcccc aattaattgc 1500
tattgtgtta ttttactact tctctctgta ttttttcttg cattgacatt atagacattg 1560
aggacctcat ccaacaatt taaaaatgag tgtgaagggg gaacaagtca aaatattttt 1620
aaaagatctt caaaaataat gcctctgtct agcatgccaa caagaatgca ttgatattgt 1680
gaacatttgt gatatatgta ttaataaata gagcaattgc cacc 1725

```

&lt;210&gt; 65

&lt;211&gt; 1098

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 65

```

agtgagactc catctcaaaa acaaacaaac aaaaaacata tatcgttggc cctgggctgg 60
ctgccctcat ggccccgtgg ctccctctcg cctgcagggt ggtgacatca ccacctgggt 120
gaacaatgcc gccgtggtcc atgggaagag cctaattggac agtgatgatg atgccctcct 180
caagtcccaa cacatcaaca ccctgggcca gttctggacc accaaggcct tccctgcgcg 240
tatgctggag ctgcagaatg gccacatcgt gtgcctcaac tccgtgctgg cactgtctgc 300
catccccggg gccatcgact actgcacatc caaagcgtca gccttcgcct tcatggagag 360
cctgaccctg gggctgctgg actgtccggg agtcagcgcc accacagtgc tgcccttcca 420
caccagcacc gagatgttcc agggcatgag agtcaagggt tcccaacctc tttccccac 480
tgaagccgga gacgggtggc cggaggacag tggaagctgt gcagctcaac caggccctcc 540

```

```

tctctctccc atggacaatg catgccctcg ttatcttgaa aagcatactt ccacaggctg 600
cactcgagga gatccacaaa ttctcaggaa cctacacctg catgaacact ttcaaagggc 660
ggacatagag acaggatgaa gacatgcttg aggagccacg gaggtttggg gccacagcac 720
ctgggcacac acccgagcac ctgtccattg gcatgcttct gctgggtgag caggacagct 780
cctgtcccca gcgaagaatc cggtgcccc tgggcccagtc ccaggacctt tgcacaggac 840
tgatgggtgt aacctgacct ccacaggagag gcaggaaaac agccagaagc caccttgaca 900
cttttgaaca tttccagttc tgtagagttt attgtcaatt gcttctcaag tctaaccagc 960
ctcagcagtg tgcatagacc atttccagga gggctctgtc ccagatgctc tgcctcccg 1020
tccaaaaccc actcatcctc agcttgacaa aactgggtga acggcaggaa tgaaaaataa 1080
agagagatgg cttttgtg                                     1098

```

&lt;210&gt; 66

&lt;211&gt; 2407

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 66

```

ccgcgagctt ctcctctcct caccagccag agcagtcatt atggcgaacc ttggctgctg 60
gatgctggtt ctctttgtgg ccacatggag tgacctgggc ctctgcaaga agcgcgcgaa 120
gcctggagga tggaaactcg ggggcagccg ataccgagg cagggcagcc ctggaggcaa 180
ccgtacacca cctcagggcg gtggtggctg ggggcagcct catggtggtg gctgggggca 240
gcctcatggt ggtggctggg ggcagcccca tgggtggggc tggggacagc ctcatggtgg 300
tggctggggg caaggaggtg gcacccacag tcagtggaa aagccgagta agccaaaaac 360
caacatgaag cacatggctg gtgctgcagc agctggggca gtggtggggg gccttggcgg 420
ctacatgctg ggaagtcca tgagcaggcc catcatacat ttcggcagtg actatgagga 480
ccgttactat cgtgaaaaca tgcaccgtta cccaaccaa gtgtactaca gggccatgga 540
tgagtacagc aaccagaaca actttgtgca cgactgcgtc aatatcaca tcaagcagca 600
cacggtcacc acaaccacca agggggagaa cttcacccag accgacgtta agatgatgga 660
gcgcgtggtt gagcagatgt gtatcaccca gtacgagagg gaatctcagg cctattacca 720
gagaggatcg agcatggctc tcttctctc tccacctgtg atcctcctga tctctttcct 780
catcttctcg atagtgggat gaggaaggct ttcctgtttt caccatcttt ctaatctttt 840
tccagcttga gggaggcggg atccacctgc agccctttta gtggtggtgt ctactcttt 900
cttctctctt tgtcccgat aggctaata atacccttg cactgatggg cactggaaaa 960
catagagtag acctgagatg ctggtcaagc ccctttgat tgagttcatc atgagccgtt 1020
gctaatagcc ggccagtaaa agtataacag caaataacca ttggttaatc tggacttatt 1080
tttggactta gtgcaacagg ttgaggctaa aacaaatctc agaacagtct gaaatacctt 1140
tgcttgata cctctggctc cttcagcagc tagagctcag tataactaat ccctatctta 1200
gtagagattt catagctatt tagagatatt ttccatttta agaaaaccg acaacatttc 1260
tgccaggttt gttaggaggc cacatgatac ttattcaaaa aaatcctaga gattcttagc 1320
tcttgggatg caggctcagc ccgctggagc atgagctctg tgtgtaccga gaactggggg 1380
gatgttttac ttttcacagt atgggctaca cagcagctgt tcaacaagag taaatattgt 1440
cacaacactg aacctctggc tagaggacat attcacagt aacataactg taacatatat 1500
gaaaggcttc tgggacttga aatcaaatgt ttgggaatgg tgcccttggg ggcaacctcc 1560
cattttagat gtttaaagga ccctatatgt ggcattcctt tctttaaact ataggtaatt 1620
aaggcagctg aaaagtaaat tgccttctag aactgaagg caaatctcct ttgtccattt 1680
acctggaaac cagaatgatt ttgacataca ggagagctgc agttgtgaaa gcaccatcat 1740
catagaggat gatgtaatta aaaaatggtc agtgtgcaaa gaaaagaact gcttgcat 1800
ctttatttct gtctcataat tgtcaaaaac cagaattagg tcaagttcat agtttctgta 1860
attggctttt gaatcaaaga ataggagagc aatctaaaaa atatcttagg ttggagatga 1920
cagaaatatg attgatttga agtggaaaaa gaaattctgt taatgttaat taaagtaaaa 1980
ttattccctg aattgtttga tattgtcacc tagcagatat gtattacttt tctgcaatgt 2040
tattattggc ttgcaacttt tgagtattct atgtaaaaat atatatgtat ataaaaata 2100
tattgcatag gacagactta ggagttttgt ttagagcagt taacatctga agtgtcta 2160
gcattaactt ttgtaaggta ctgaatactt aatatgtggg aaacctttt gcgtggtcct 2220
taggcttaca atgtgcactg aatcgtttca tgaagaatc caaagtggac accattaaca 2280
ggctcttgaa atatgcatgt actttatatt ttctatattt gtaactttgc atgttctgt 2340
tttgttatat aaaaaattg taaatgttta atatctgact gaaattaaac gagcgaagat 2400
gagcacc                                     2407

```

&lt;210&gt; 67

&lt;211&gt; 1575

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 67

```

atgcttatgg tcccagctat tttgggggtt gagggaggag aattgcttga gcccaggagg 60
ttgaggctgc agtgagccat gtttacacca ctgtacacca gcctgggtga cagagttgag 120
accctgtcta aaaaaaaaaa aaaaacagca aaactctccc ccgcaaaaaa taacaaaaaa 180
aaagatgaat atggaggagg ttgtaaaatt aaagaaggta catgggtgca tgtgtgcttg 240
tgtgtgtgtg tgtctgtctg tctaacaaca gcagaagcag gcaagggtca ctgtggtagt 300
cactgttgtt cctctcccca ttttgcctca cagtttacaa gtccttccac tttctctctg 360
aggcagaaag agcaagggtt tttctctcca ttttatgggt gggaaaattg aggctgcct 420
gagtgtgtga cttgtggcaa gtcactctgg tcatctaggg cagaggctcc ccagatccca 480
ggcctcctgc ctccagtcce cagcccgag cccaggatta ggcagagcca gttgctttcc 540
cgtggctgcc ctgactcctt acagggatca ctgagattct gatgaacaga ccttctgccc 600
gcaatgcctt ggggaatgtc ttcgtcagtg agctgctgga aactctggcc cagctgctgg 660
aggaccggca agtgctgtc ctgctcttca gaagtggagt gaaggcgctg ttctgtgcag 720
gtgcagacct gaaggagcgg gaacagatga gtgaagcaga ggtgggggtg tttgtccagc 780
gactccgggg cctgatgaat gacatcggtg aggatctggg tgtgggggtg aggaggggtg 840
ttgggggtcc ctgcagatga cagtcctcct accccacca gcatctaagg agagtcttct 900
ttctgtttgg agttctgtga taagacagat gactcaccca gggggatgga ggaggatgac 960
cgagggcagt tctctcagag agggagtctt ggctcttcag cttttgtgtc ccgccccacc 1020
ctcagggttc aagcctggcc attccaaagc agttaagttt cccaagcat gctttcaagt 1080
tttgacaatt gctgttacct ttgctgaga taccctctt tggttacttg aactttgact 1140
tgtccttcaa gccctccagt acctcctcct ccagggaagc ttccaaccc accctatgag 1200
ctttttattg gagcactgat gatcctgggt caataatgcc tgatacacat ttgtcttccc 1260
catgagactg agcccatagg gaacaaaggc tatgtctgat tcattctgtg ttcccagttc 1320
ccagcaccca gcacagggtc tggcacaaag aaaggaggag cccaggaggg ccagcggatt 1380
aggcctgaac agggatcatc cagcccatcc tccattcct cttccctggc tgattctgta 1440
actttcccta aagggaatat tggcttctga gataacctgg ctgcgggaag cagaggttgt 1500
cgtgagcaga gattgtgcca ttgcaactca gcctgggcaa caacagcgag actccatcac 1560
tcaggacctat gtaac 1575

```

&lt;210&gt; 68

&lt;211&gt; 1553

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 68

```

tcatccgggt tctccgcgcc ttcacctctt ccgtgccgct gctgccaggg gccctgggtc 60
actaccctga tgtgtgctccc tcacgcctcc accctgaagg cctgggcat ggccggacgc 120
tgttccctgt tatgaagaac tatccctgta ccctgcgcca gtacctttgt gtgaacacac 180
ccagcccccg cctcgcgcgc atgatgctgc tgcagctgct ggaaggcgtg gaccatctgg 240
ttcaacaggg catcgcgcac agagacctga aatccgacaa catccttgtg gagctggacc 300
cagaaggctg cccctggctg gtgatcgag attttggctg ctgcctggct gatgagagca 360
tcggcctgca gttgcccttc agcagctggt acgtggatcg gggcggaac ggctgtctga 420
tggcccccaga ggtgtccacg gcccgctcgt gccccagggc agtgattgac tacagcaagg 480
ctgatgcctg ggcagtgagg gccatcgct atgaaatctt cgggcttgtc aatcccttct 540
acggccaggg caaggcccac cttgaaagcc gcagctacca agaggctcag ctacctgcac 600
tgcccgagtc agtgctcca gacgtgagac agttgggtgag ggcactgctc cagcgagagg 660
ccagcaagag accatctgcc cgagtagccg caaatgtgct tcatctaagg ctctgggtg 720
aacatattct agccctgaag actctgaagt tagacaagat ggttggtggt ctcctccaac 780
aatcgccgcg cactttgttg gccaaacaggc tcacagagaa gtgttgtgtg gaaacaaaaa 840
tgaagatgct ctttctggct aacctggagt gtgaaacgct ctgccaggca gccctcctcc 900
tctgtctcatg gagggcagcc ctgtgatgtc cctgcatgga gctggtgaat tactaaaaga 960
acttggcatc ctctgtgtcg tgatggtctg tgaatggtga ggggtggagt caggagacaa 1020
gacagcgag agagggtgg ttagccggaa aaggcctcgg gcttggcaaa tggaagaact 1080
tgagtgaag ttcatgtctg agtccgtgct tcacagacat ccgaaaagtg aatggccaag 1140
ctggtctagt agatgaggct ggactgagga ggggtaggcc tgcattccca gagaggatcc 1200
aggccaaggc actggctgtc agtggcagag tttggctgtg acctttgccc ctaacacgag 1260
gaactogttt gaagggggca gcgtagcatg tctgatttgc cacctggatg aaggcagaca 1320
tcaacatggg tcagcacgtt cagttacggg agtgggaaat tacatgagc ctgggcctct 1380
gcgttcccaa gctgtgcgtt ctggaccagc tactgaatta ttaatctcac tttagcgaag 1440
tgacggatga gcagtaagta agtaagtgtg gggattttaa cttgagggtg tccctcctga 1500
ctagcctctc ttacaggaat tgtgaaatat taaatgcaaa tttacaactg ccc 1553

```

&lt;210&gt; 69

&lt;211&gt; 2680

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 69

```

gagcaggcta cagccccagg gatccaggag gggccctgct gctgaggccg cgccctcccc 60
gccctgaggt gggggcccac caggatgagc aagctgcccc gggagctgac ccgagacttg 120
gagcgcagcc tgctgcccgt ggcctccctg ggctcctcac tgtccacag ccagagcttc 180
tctctgcacc tccttcgcc gcctgagaag cgaaggccca tctctgatgt ccgccgcacc 240
ttctgtctct tcgtcacctt cgacctgtc ttcctctccc tgctctggat catcgaactg 300
aataccaaca caggcatccg taagaacttg gagcaggaga tcattccagta caactttaaa 360
acttccttct tcgacatctt tgcctggcc ttcttccgt tctctggact gtccttaggc 420
tatgccgtgc tgcagctccg gcaactgggt gtgattgcgg taagatgccca ctttccctggc 480
agcttctggg ccctggcagg gctgggtgaa gggatgggat ggaggaggac tcaattccca 540
gcctctgcct tccccttccc cctccctccc cctgggcagg tcacgacgct ggtgtccagt 600
gcattcctca ttgtcaaggt catcctctct gaggtcagtg gctcagggtc tggccagtct 660
ggatgggcatc agacctgagt ggtatgcttc tagagaggag catttctcta atttgggtg 720
tctgtccctg ttgtccgggt tagggggaga gggaaatcctg tcctttggta tctataagga 780
atcatccttc acccgcttcc ctgacttagc cccttgacgc tctaggaatc agaaggttct 840
ttctccagcc taaccccagt ttatcctgct gcagacttga gagggttccc aagcagctgc 900
taccaggaat ggggtgtatg ccagtttggc tggctagagt tggtagccac agaagggggc 960
tctgggtttg gggtagcccc tgccatggag ctcagcccc tcccttcaca gctgctcagc 1020
aaaggggcat ttggctacct gctccccatc gtctcttttg tctctgctg gttggagacc 1080
tggttccctg acttcaaagt cctaccccag gaagctgaag aggagcgatg tgagtgtctg 1140
cgggtagggg ggtgcagcga gggttaccca cagccccaaag agaggggagt tgcgggcatg 1200
agagtcagtc tgaagcatct cgccacctct gagcagcctc cagtagcctg agggggagct 1260
tggttggggg taccacaggc tgctagggtg taactgtcct cgggtccggga ccgagtctgc 1320
tcctccaggg tatcttgccg ccaggttgc tgttgcccgt ggaccctgc tgttctccgg 1380
tgctctgtcc gagggacagt tctattcacc ccagaaatcc tttgcagggt ctgacaatga 1440
atcagatgaa gaagttgctg ggaagaaaag tttctctgct caggagcggg agtacatccg 1500
ccaggggaag gagggcacgg cagtgggtga ccagatcttg gccaggaag agaactggaa 1560
gtttgagaag aataatgaat atggggacac cgtgtacacc attgaagttc cctttcacgg 1620
caagacgttt atcctgaaga ccttcttgcc ctgtcctgcg gagctcgtgt accaggaggt 1680
gatcctgcag cccgagagga tgggtgctgtg gaacaagaca gtgactgcct gccagatcct 1740
gcagcagagt gaagacaaca cctcatctc ctatgacgtg tctgcagggg ctgcccggcg 1800
cgtggtctcc ccaagggact tcgtgaatgt ccggcgcatg gagcggcgca gggaccgata 1860
cttgtcatca gggatcgcca cctcacacag tgccaagccc ccgacgcaca aatatgtccg 1920
gggagagaat ggccttggg gcttcatcgt gctcaagtcg gccagtaacc cccgtgtttg 1980
cacctttgtc tggattctta atacagatct caagggccgc ctgccccggg acctcatcca 2040
ccagagcctc gcggccacca tgtttgaatt tgctttcac ctgacagacg gcatcagcga 2100
gctggggggc cgggcgtgac tgtgcccct cccaccctgc gggccagggt cctgtcgcca 2160
ccacttccag agccagaaag ggtgccagtt gggctcgac tgcccacatg ggacctggcc 2220
ccaggtgtc accctccacc gagccacgca gtgctggag ttgactgact gagcaggctg 2280
tggggtggag cactggactc cggggcccca ctggctggag gaagtggggg ctggcctgtt 2340
gatgtttaca tggcgcctg cctcctggag gaccagattg ctctgcccc ccttgccagg 2400
gcagggtctg ggctgggcac ctgacttggc tggggaggac caggggccctg ggcagggcag 2460
ggcagcctgt caccctgtgt aagatgaagg ggccttcat ctgcttgcgc tctcgtcggt 2520
tttttttaga ttattgaaag agtctgggac ccttgttggg gagtgggtgg cagggtgggg 2580
tgggctgctg gccatgaatc tctgcctctc ccaggctgtc cccctcctcc cagggcctcc 2640
tgggggacct ttgtattaag ccaattaaaa acatgaattt 2680

```

&lt;210&gt; 70

&lt;211&gt; 2266

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 70

```

acgtgggtgca cagcctgccc aacctcaccg cgctcagcct ctggggctgc tccaagggtca 60
ccgacgacgg cgtggagctc gtggccgaga acctgcgcaa gctgcgcagc cttgacctct 120
cgtgggtgccc acgcatcacc gacatggcgc tggagtacgt ggccctgcgc ctgcaccgcc 180
tagaggagct cgtgctcgac aggtgtgtac gcatcacgga cactggcctc agctatctgt 240
ccaccatgtc gtccttccgc agcctctacc tgcgatgggt ctgccagggt caagacttcg 300
ggctgaagca cctcctggcc ctggggagtt tgcgcctcct gtctctggca ggctgccgcg 360
tgctcaccac caccgggctg tccggcctgg tgcagctgca ggagctggag gagctggagc 420
tgaccaactg ccccgggggc acccccagac tcttcaagta tttctcgag cactgcccc 480

```

```

gctgcctcgt cattgagtag cgcgagggcc ccgccccggt cgcgggaacc cggccatgac 540
ctgggcgggg ggcgggggcg ccgcccagcc ccctcttccc gccttgcgct cgggggagcc 600
tccgcgcccc cggcccagcg cgggagggcg ggcgagccga gggaaagccc ctccccgacc 660
ttcgggtccct ccgcccctcc agccccgccc cgggcagggg ggcggcgggg gggcccgccc 720
cacgcacgca cgcacactcg gggactttgt gcatgcccct cgtgcccga ctgcacgcg 780
ccctccgcca cgcacagcc acagccgccc ccataactcg ctgcccctcc cgcttggggg 840
gcggggctcg gtccttgggg gggctttgag ctctccagac tgtgccctta ccgcttccc 900
cgccacaccc gctctgtctt cccactgtcc ccccatccc gggcagggcc cagtgggatt 960
gagggggctg ggtcccccag gacacgggccc cagaagagcc ccacgggctt cctgcatctt 1020
ccaccgcacc atacctggag ccctccgagg ggtgtcaggg gaaacaggcc accgccaagg 1080
ccatggcccc cgcgcgagag ccaggcccca ccgcacctc ctcacccatc cagcctgacc 1140
cacgcggcct ctccctctcc ttgcgctgt gtggggcagt ccctgtccg ccccaaaacc 1200
cggccttggt ccctggccag gctgagagaa ttgggcaggg agaggcgga agggctggcg 1260
atcgcttgga gtcattaacg tgatccagc tgaactcggg cggcctcaac ccagggtggg 1320
cgcaggcacc ttgcaagcct cgagctgtag ccacctcag gcctgggaag aggcctgggc 1380
cgacctcaca cctcagccct tgcaccggc cgggctcagt tcaggcctgg gcaccgagct 1440
tcaccctggg tgggtctcct cagggtggag ctgcagagt gacccagcca agggtcaggg 1500
tcagcactgg gtcagcgact ccaatcttcc agtgccagc acaccctaga caccccgagg 1560
agggagggct cttttctagc ctgccccccc acccccactt caccctccc cagcttccc 1620
aacttctgtc tgccaaaatg ggctctgacc gtgctctgtc ggcccagagc atttggaagt 1680
cctggggggt gctggcaaat ctcaactgtt gctgaggagg ggctgggacc ccttcccatc 1740
ccaaccttga gccccaggag ataccgccc cacaccaat cttgggacac tccctatctg 1800
gttggaagag agtaaccagt ttccagagag ccagagagt agagagagaa agagagtgg 1860
agagagagag aaagagagag agagatgctg ttgaatcaga aacagatcaa cagcccaagg 1920
atcttctgt ccctggagt ccagccccag gaagctccag ggctgagtgg tcaggagcca 1980
gtttctccag ccctcctccc ccacaacccc tagtggggag gggcagctgt ccatttgccc 2040
aaagtattaa tgcaactgaa gctgtgat tccaacgac tgtaggagga aaaattaagg 2100
ggagagagga aaaaaaac aaccaacccc taaaatcatt ttcttattgt acataacgac 2160
ctcattctcc tgtatatg cgagatataa ctttatatt ggtaagtgtt tcttgtgcta 2220
ttttatcacg tgacctgttt ataaaaatat atattaaaa agttct 2266

```

&lt;210&gt; 71

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 71

```

gttggaata ataccatcca tgtgcaccga gaaattcaca agataacca caaccagact 60
ggacaaatgg tcttttcaga gacagttatc acatctgtgg gagacgaaga aggcagaagg 120
agccacgagt gcatcatcga caggagctgt gggcccagca tgtactgcca gtttgccagc 180
ttccagtaca cctgccagcc atgcccgggc cagaggatgc tctgcacccg ggacagtgg 240
tgcgtgggag accagctgtg tgtctggggg cactgcacca aaatggccac caggggagc 300
aatgggacca tctgtgacaa ccagagggac tgccagccgg ggctgtgctg tgccttccag 360
agaggcctgc tgttccctgt gtgcacaccc ctgcccgtgg agggcggaagc tttgccatga 420
ccccgcagc cggcttctgg acctcatcac ctgggagcta gagcctgatg gagccttgg 480
ccgatgccct tgtgccagt gctcctctg ccagccccac agccacagcc tgggtgatgt 540
gtgcaagccg acctcctg ggagccgtga ccaagatggg gagatcctgc tgcccagaga 600
gggtcccgat gagtatgaag ttggcagctt catggaggag gtgcgccagg agctggagga 660
cctggagagg agcctgactg aagagatggc gctgggggag cctgcggctg ccgcccgtgc 720
actgctggga ggggaagaga tttagatctg gaccaggctg tgggtagatg tgcaatagaa 780
atagctaatt tatttcccca ggtgtgtgct ttaggcgtgg gctgaccagg cttcttcccta 840
catcttcttc ccagtaagt tccccctg cttgacagca tgagggtgtg tgcatttgtt 900
cagctcccc aggctgttct ccaggettca cagtctgggt cttgggagag tcaggcaggg 960
ttaaactgca ggagcagttt gccacccctg tccagattat tggctgcttt gctctacca 1020
gttggcagac agccgtttgt tctacatggc tttgataatt gtttgagggg aggagatgga 1080
aacaatgtgg agtctccctc tgattggttt tggggaaatg tggagaagag tgcctgtctt 1140
tgcaaacatc aacctggcaa aatgcaaca aatgaatttt ccacgcagtt ctttccatgg 1200
gcataggtaa gctgtgcctt cagctgttgc agatgaaatg ttctgttcac cctgcattac 1260
atgtgtttat tcatccagca gtgtgtgctc gctcctacct ctgtgccagg gcagcatttt 1320
catatccaag atcaattccc tctctcagca cagcctgggg aggggggtcat tgttctcctc 1380
gtccatcagg gatctcagag gctcagagac tgcaagctgc tgcccaagt cacacagcta 1440
gtgaagacca gagcagttc atctggtgtg caactaagc tcagtgtctc ctccactacc 1500
ccacaccagc cttggtgcca ccaaaagtgc tccccaaaag gaaggagaat gggatttttc 1560
ttttgaggca tgcacatctg gaattaaggc caaactaatt ctcacatccc tctaaaagta 1620

```



```

aactactgtt aggaacagca gtgttctcac agtgtggggc agccgtcctt ctaatgaaga 1680
caatgatatt gacactgtcc ctctttggca gttgcattag taactttgaa aggtatatga 1740
ctgagcgtag catacagggt aacctgcaga aacagtactt aggtaatgt agggcgagga 1800
ttataaatga aatttgcata atcacttagc agcaactgaa gacaattatc aaccacgtgg 1860
agaaaatcaa accgagcagg gctgtgtgaa acatgggtgt aatatgcgac tgcgaacact 1920
gaactctacg ccactccaca aatgatgttt tcagggtgtca tggactgttg ccaccatgta 1980
ttcatccaga gttcttaaaag tttaaagtgt cacatgattg tataagcatg ctttctttga 2040
gttttaaatt atgtataaac ataagttgca tttagaaatc aagcataaat cacttcaact 2100
gc 2102

```

&lt;210&gt; 72

&lt;211&gt; 731

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 72

```

aaaagatgac aacagcagcc aggccaaacct ttgaacctgc cagaggtgga aggggaaaag 60
gagaagggtga tttgagccaa ctttcaaagc agtattcaag cagagaccta ccctctcata 120
caaagataaa atacagacag actactcagg atgcccctga agagggtcgt aaccgtgact 180
tcaggagaga gttggaagaa agagagagag ctgctgcaag agagaaaaat agggatcgct 240
caacccgaga acatacaacc tcctcttcag tgtcaaaaaa gccacggtta gaccagattc 300
ctgccgccaa ccttgatgca gatgaccctc taacagatga ggaagatgaa gattttgaag 360
aagaaagtga tgatgatgat actgcagctc ttcttgcaag actggaaaaa attaaaaaag 420
aaagagctga agagcaggcc aggaaggaac aagaacaaaa agctgaagaa gagaggattc 480
gtatggaaaa cattctgagc ggaaacctc tccttaatct cactggccca tcccagctc 540
aggccaactt caaagttaaa agaaggtggg atgatgacgt tgtcttcaag aactgtgcaa 600
aaggtgtaga tgaccagaag aaagacaaaa gatttgtaaa tgacacactg cgtatcgaat 660
ttcacaaaaa gttcatggag aaatatatta aatagtacag ttttatgtgc ttaattaaag 720
actgtaaaac g 731

```

&lt;210&gt; 73

&lt;211&gt; 1165

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 73

```

tggagaggca ggaagagggg cctgaggggc gaaggggttt ggggctccca tttcgccggc 60
cagtcctctc tcctcagcct ggcagtgggc ctgggctcct tcccctgggc tgtactgagc 120
cgagcccagg ggtttgcaga ggggtggggg ccactctctc agcttggtctg cagacctct 180
ttaccctgac tcacaagccc cactgatgct ctgggccatg ccggtctgac gctgctgtgg 240
atgccgcgag ggacggacac acgtccgggg caccacagag gaggggcccc agcctgggag 300
actggccctg cggcctccac gtcaaaactc ctcccaaaag cccctaacag accagtggcc 360
gaggtgtggc tcttattgca tccatccctg aagatgtgtg gctgtgtgtg tcaccattgg 420
agtccctttg gggccaagat gtgtgtgcac ccgggggtcgt ggccattcac tcccaggcag 480
gggtgagggg ggcctggccc aggaggccag gaaggagggc cctgtctgcc tccacctctg 540
gggtgcacccc ctgctacca ccctcccttc tagagagcac atcgctgac cgggggagaag 600
tggggccgtg gttcgaggga gggctggcca ggggtgggac ccttatgaga ctcagtctgt 660
gagtaaaaact gggggctcaa atgcccagga tgaggggatc agtgactgtc taggaggatc 720
ccttgccctg taggtgcccc aagaccgcag ggtagaaatc agccgggatg cctgcatccc 780
acccccggcc ccaggggcca ccacataaaa tctggggagc cagagctgct gaggtgtggg 840
cagctcccct aaaatgggca cggcccagcc tgtcccatga ggaataaagg cccctggccc 900
ccttgagaga gggcttggtg gtgagggctg actcctgggg gcccccaagg ctccccctct 960
gtggggaggc caccttttaa ggcaccacta gcagttagga tatggtggca tcagccctgg 1020
ggcctcctgg gtggcagggg ggcagcagct ctccctccca ctacaggcc ctgcagtgtc 1080
catttggaat tcctcccaag acccctggcc acccagaccc cccattcttc ctaacactgg 1140
caataaacc tcaactgtga cccac 1165

```

&lt;210&gt; 74

&lt;211&gt; 1808

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 74

```

tggtttgtct tgcaattaag catttaagt cccatgttaa aagagccaga ccgactgat 60

```

```

tcacatgagc gttttgctga catgatgggc aactgaagtc acccctgttg cccatgcact 120
ggaaaaaaag ttgaatttgt tggatatatt ctggggctga tgaacgttct gggatgtgct 180
ttcagtcctc gtattacggc cagcacctta cactgtctct gtgaacgggg ccaagccatg 240
atgtgccaac aagtgtcagc tttgaaaggt gtttgtctcc caatcggggg gactccccctg 300
ctgcctggca gcatgtcgca gatcagcaca gagtggggcc gtggttcagc agtgaccac 360
agaatggctt tgagcatcag tctacaggac aggttggaag catccactgt gaaccaggca 420
ttagtccctt acctggcctg tgtgtgctca gtagagaagg agagggacag gccactccca 480
gactgcccag cccaggaggg ttaataaatt gggggcgagc caacctgtca gtgcttctctg 540
aatgccccag cctctgtatt ggtgcgttgg gtcagtgaac tttctaaac tctcctgaaa 600
atccagctgc tctccctgc tgcttgggag ttcacccagg agaggaaatg ggtgtgtttt 660
gttaaggctc cttgtggaga ctcagggtcg aatcctgctt ggtaatatca gtgtgtgtgc 720
ttggggatgg accttctact gaataaaaac tccctccctc ccccatgtgt ggtcacatat 780
cattctacat atctcatctc tgagcatctc catggaagct tgatttttgt tcttttttgt 840
ttctttatgt atttttttct gttgttatta ttttttaatg ttcaaagact agcctttccc 900
tttgggattc caaatgatcc catgctgtgg tctgaggggc aaagccacct atgttggcgc 960
tcgccattaa tccccagcgc tcagtttaga ggctcacgtg cagacatcag aggtccatg 1020
ctgcacagta gctcaggcag ggtagtgcct ctcaaccagg ccacaaaact ctccccctg 1080
gagtcccaga tggcgcttca caccagggca gtggaggcag gcatggtttt tgggcacagg 1140
gcagagcata aggatcccag gtcagtgtgg gagagctact ggctcttagg atcaccttgg 1200
gcagaagtca cagggttca tcctaggagg gccagcttg ggagtctgcc tccccctgat 1260
cccaggacca cccacaggag aggggcagtg tccatcttct tgaagggacc ctttggagat 1320
ctcgtcctaa gtgtggagag gactgacgtg gccctgtcat ctcaacacat cccaggttca 1380
ggcagccctc agctgaaaca atgtcagggt cctcaagggt cccattttaga cagaccacg 1440
gcttgaaca gcgcgtcct caggaggcag cactagcgca taccactcc ccacggacac 1500
tgagttcctg gtgacagctg cagccccagc cccgccagga gtccctggaga cagcagccct 1560
cagagaccct gcaggagtga gtgcacccca ccttgctcag ccacacccca ctccccctg 1620
ccctgtagtt gtgctgcccc tgctccacac accatggggc ccccttgcct atttttggac 1680
tatttataca gcaggtttgg atcatgtttt tctactaata agaattgctaa cattgttgtg 1740
tagataatca gtgagggtt tatgaagttt acncccttgc attattaaag gaaataacag 1800
ttcatgcg
1808

```

&lt;210&gt; 75

&lt;211&gt; 2670

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 75

```

ggtaagcgga atgtgctcat agaccatcag acgcttgtcg aaggcaggct ctagtcatgt 60
aattgcacag gacaaggagg tcagcgtgtg tgatggcagc atgctgtgcc ggcacatcgt 120
ggagtcctag aaactctcta gtccctgcgg ctgttcccct cctctgctct ctccctggag 180
aggactgcca gctcttaaga aacattcctg gtgcggtgtc tgcaagtccc tttgtgggtg 240
acttcaggct tcccgttctc gtggtgctct tccctgggatt cgttttttta ttaccctccc 300
tccctacttg taggcctcag ctatggcttg acgtaatcgc ttttagaccc aggttggctt 360
cccttcatta agctatgatc ctccacccca tttttttttt ttttaatttg gagtgggagg 420
gagggggggt ggcgagagaa agctcgaaag gtattattgg tttttcaaaa aattagagg 480
gacgattcta ccaggagttt gactgatagg agtgtgtgca gggcaggaaa ggttcggagg 540
caccgcacta ccaccactcg gaaagccgct agtcagatc gactaggagg aggttagat 600
actttagtgt atttaaagag catttcagtt aactttttca gctattttta aagtttgtga 660
atggagtgtt attttgaca ttcttaataa tgaattctcc aaaggcattt agccttgact 720
taatattaaa tcctaaggat tttatgtaag gtttttttgc aacctattta atttttttta 780
aatgcctaac ttctgagggt cataagcccg tggtttgtgt actggaacta aagcggact 840
cactgattca tattggatcc ccagggtatac cttctgctgg tagcatatgg ctggaaaaag 900
ccgtttgcct cacacattgt aacctgcctt ggctagaaaa tgcttttaat gtctcaactc 960
tctcttttct gtgtcatgtt ttggtaggaa atctttaaga ttggcggacg gaacagggtat 1020
tttagtgaga cacttctgag tacttgcttt ttcttttgac ttctaaccac ctaaaagaga 1080
aggaggctct catgttgata ttttgcttgg ttttatttta ctgattttta aaggtatata 1140
gaaaaatgta ggcctttaaa aagaaacagc atgtagtttt ttattttta atgttccata 1200
gagtggatag gcagacaggt ctattgtaat gtattctgta ttttaataat taataactc 1260
tagaaagtag acctcatgca ttcttttagc atgattttct ttttaactgc ttttcatttt 1320
aaagggcacc cgtgcggaag ctggttttgc aaggactgtg taagctgtat gcgttctagc 1380
tgtatgcgtt ctgtagtctt ttcttaggtg ggtaacattt tcaataacgc gcgcacagca 1440
cacaggggtg ccctgagccg aaggagcaaa aaaagccacc gctcgtttct ataaccagc 1500
ttgcttttca caggcgtggg atccaggatg gtgtcctctg tgaggacttg aactctgggg 1560
ctttaattcc actgtttaat tttcaggtag cacagcagca aagcacagag tgtgaccttt 1620

```

```

ttcatgtctg agctgattct gtttgctcca cgtgcctgct tcttgctact gttcatttag 1680
taatgggatc acctcaccat gccatgctct gggctctccc tctctgtcca tttctgtttt 1740
gctttcctgg ctaaaccocat ctaccattct taacactggg agctcctgtc ccattccaag 1800
actcactctc tcagaccttc ccctctccct ggctttccat gctcctctcc ctccacctcc 1860
tggcttcaac tgggtgaggg ccgtattcct gccactctgc tccgcctcag ccttgagaac 1920
tcacagtggt ctgggtggga aggtgctgac gattttcaca ctgtgtttac ctctccatca 1980
cctctcaacc tttgcttcga caggtcttca ctacagattt attcctccag gtctttgatt 2040
ggagagagta actttttaat tctgtgtttt tgcagtttgg ctctgtagga gtgagtggcg 2100
attcaaagat gccggcgctc ccgagtgtgc ggttcgtgcc ctttaaccacc cgcttctttg 2160
tttcccgccc ctctgcttcc gcaggagctc ttgtgcttga gttcagtgtt agtggtagcg 2220
tggctcactc cacttgaggg tggcgccgt ctgaccgtgt gttactgctt tgggtggggg 2280
gcctcccgcc cctgatgcgt gtacactctg cgggctgcac cgggtggctc tgggtggggg 2340
cgaagctgtg ttgactggga gagcgtggag aaattgagac agggagagat gacgggagtg 2400
cgtttctctg ggtttgatct ccctcctgtt ttctccaga cacaccacac ctaccttggg 2460
ggaatgccgt cgcctgttcc acccctttgt tcaactcgcg ttaactgctg tggtaacttt 2520
ttcaggatct gtgtgaagaa tggtaatgac gtagttagaa ggaaaatgta ctgttgtgtg 2580
tttcatattg gtgatttcgt accaaaaaaa tgtgtttgaa ctatattgtn tgnatttgg 2640
aagtcgtgtt aataaaaccc tgcagtttct 2670

```

&lt;210&gt; 76

&lt;211&gt; 1976

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 76

```

cccctctcca ggcctatgtg tctgtgaagt gagggatatac acactggcat gctgtaagaa 60
caggagatag cagagtgtct agtacacaga ggtacttaaa ggtgggagcc attactttcg 120
ccatgagtca agttatcttt ggctgcgac attgatgtct ctctttcctg ctcttttacc 180
tcagctgccc tgtgagctac aggacatggt tcggaaacat ttgcacagt gtcaagaggc 240
cgccagccca ggtcctgtct ccagcctagc ccaggggct gtggtgccta cctcagtcac 300
tgcccgagtg ttagagaagc cggagtctct actgctcaat tcagccagc caggcagcgc 360
cgggcgcccc ttggctgagg atgtctttgt gcatgtggac atgagtgagg gtgtcccagg 420
tgatccagcc agtcccccg ccctggcag cccaccacca caaccacatg gggagtggca 480
ctctctgggt actgccagg gctccccga ggaagagctg cccctgccag cctttgagaa 540
gctgaacccc taccacccc cgtctccacc acaccactg tatcctggcc gcagggtaat 600
agagttctct gaggataagg ttcggatccc ccgcaacagc cccctgcccc actgcactta 660
cgctacccgc caggccattt ccctgagcct ggttagaggag gggagtgagc gggcccgccc 720
cagcccgagt cccagcacc ctgcctcagc ccaggcctca cccaccacc agcccagccc 780
agcacccta acactcagt cccagctag ctctgccagc tctgaagagg acctgctggt 840
cagctggcag cgggcatttg tggaccgtac tccaccacct gctgctgtgg cccagcgcac 900
agcctttgga cgcgatgcc tccctgagct gcagcgccat tttgccata gcccgcctga 960
cagagatgag gtgggtccagg caccttctgc ccgaccgaa gagagtgagc ttttctacc 1020
cacagaacct gactctggtt tcccaggga ggaagaagag ctgaacctgc ctatcagtc 1080
tgaggaagag cgccagagcc tgctgcccac taacaggggc acagaggagg ggcaggcac 1140
tcccacacc gagggcagg cctggcact cccagctcc agtggcccc agcgagccc 1200
caagaggatg ggggttcacc acctgcacc gaaggacagc ctgaccagg cccaggagca 1260
gggcaacctg ctcaactagg gccctgctg gccttctgc cattgctgca ccaggactgc 1320
aaggagtccc cacaccttg cagctcagg tccccagctc aagcccttga cctctcctct 1380
atccagaccc gcacagctgt ttcctgtgtg gatgggttca ggttgtgggc catgccaggc 1440
ctgtcagctg cgttgactga ctgcagcagc ttgcctcat gttttccctt tttcttagaa 1500
tattttattc tcagaggtaa catgcagttg ggtctcaaga cctttcctcc aatcagccc 1560
acccagccca gactgggctt ttctggggag ctgaggagt tatcagttt catcttccat 1620
cctttcatag tcacaagttt tgttattttg ttttttttgg ggggtgatgg tgtaattgtt 1680
aacctcattt ccgtttccta cctgtttgct tccccccca gtccctcgca tgagctgttg 1740
ccctccaggg gcctggcaca gctggccttg gggacgagg agaggactga ttcaggggcc 1800
cctcagctgt ctccctccct cctctggaaa ggagggtggg gctcaggggc ctcaagctgg 1860
gctctgtgtg aggcctggcc cccactccca acctggctc tagactgtta ctcttaagct 1920
ttgagaaatt ttcacattga tgactatttt aaaatcaaat aaaactattt tactgg 1976

```

&lt;210&gt; 77

&lt;211&gt; 1874

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 77

```

ggcactacaa ggttggcacc ccccggttct tcacacatcc ggccctgtcct ggcatctggg 60
tggttctgta gctttgtttc cccgtagcta gccggttcca tgatgtgggg cacaggaaag 120
cgagttttcg ccttggccac cctcaaggcc gagctgtgcc ctctgtctgc cccagcttt 180
ccccctctgg gtcagcctgg acggcctctc acaggtttcc cagcaagtgc catctatgaa 240
aggctcgat cgcctagccg tgtaggctcg gttggatttg agcagggtgaa ggattacacc 300
aagtggaaag aggcctgcag gagttgctgc cgggtccccg tcaccactgt gggactgtta 360
gacctgcaag gcagacccac cctcgtctgg aatgaggtaa caccaagagg tgtggccagt 420
gcacagaacc atagactcaa gctttagaaa gtggccattg tggccggccc aggagcagt 480
ggcactgaga ggtctcagcc tctgtggggg tcgagagagg tctgtggtgt cctgacagcc 540
ccgtcctgcc ggaaagcagg ggtgctgcct ggagatgcgg cgggtctcac tgatgtctc 600
gtcagagctc cgtggagagc ccctggttgc aggcaggaca gcaaggctga ggggtcacac 660
ggggccacat ctgctgggtg cgtcgtgct cctctgcagc aagcccagcc tggccattgc 720
tggaggtcct ggagcccaca gtgccttggc cttaaagagc tcacttgaga aacggcttgt 780
tccgttgggg tggggggtgg attgaagact ctgagacgag cagggaactc agaactga 840
gtccctattt gatgttaaaa tatgaccgtt aaacttctgg gtaagataat gaatggcact 900
atggtttata ctgtttctgt tttatgggct cttccagaga cgtgaactgg aaaaggctct 960
gcagtgtctg ggattcgtc agtgcctgcag gggaggggcag gtgtgagggg aatggccctg 1020
gaggggtgatg gggctggggc atccgatgca gctttatagt tctgtaatta ccacttttaa 1080
actttttatt acgaaaaatg tcaaggaccc tgggaattacg gtgaggtagg caggataatg 1140
gcccccaaga tgcccgtgtt gtgaccccc caccctgtga gtgcctcaca tggggagatt 1200
gtcctagggtc atcttgacag cccagggcag ccccatgggc ccttaaagct tgagagcctt 1260
tctgtctgag tctgagagat gccagaagca ggagagggtta gaaccggagg agggccgcac 1320
ctgcgctgct ggccttagag gagggccgag gactgtggtg gcccctaagc agctgggact 1380
ggggacacct gtcccagccc tgcaagaaac tgaattctgc cagcagcccc catgatggag 1440
gaaaggaagg atcctgcctt gccagcacct tgacctctga cctccacaat tgtaagcctg 1500
aggttttgtg tagtcacat agaaaactca cacacataag aactctgtac tgattcaaca 1560
atagaacatg tcacacacga actggaaact gattctgtgg gcgacaagag tctatagtaa 1620
acgttatgac agattctttg aatgcgctaa tctcagactg gactaaagt gggattaaat 1680
ttaatttgta cttgagttca gtgcattgct gttctgggca taggaaatcc aggttgctgg 1740
tgatgaacag ctgaaaagag ctgtgtcacc atgggtgtct ctgtcagtc tgtgaccacc 1800
cttacccttg taaaatcaag caaggagag attattttct aatgtaaatg aaaataaaaa 1860
ataaagcagc ttgc 1874

```

&lt;210&gt; 78

&lt;211&gt; 1746

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 78

```

tttttttttt tgaataatct gtgctttaat ggaaaaatga agcattaatt tgtttagttt 60
ctcatacaac atgttttacta aacatttcag tgtcaataat ttcttaagat tgtaacattt 120
aaccttgtat tggagctaat accaattcta gccatgggag tatgttttgg actttttgaa 180
caattttgag taaaatgaat gtcactgtct ttaaattgta ctgggagcaa agacaaaaga 240
acatcagctc attctttcca actaatagaa catttaatga tgcaattttt attacattat 300
tttaaggcta ttatcataat gttaaataat cttatttttt ttgtctccg tctgttacta 360
aagctcaata catcattctg aacattatta attttcactt aacttagatt taagtattga 420
atttttaact tgggctccag gaaaaatcct gaaaaagaaa gatcagcatc tagcatcctt 480
ttcctattct ttcaccacaa attctcaatt tgatatgact tatcatgaaa tctgtattgg 540
gaagtataga tttctaagat aactttttgt aactaaaaaa taatttctctg tgcatacaca 600
gggggattaa aaatcaccaa agtactgaag gaacacgtgc tttgattatt attcccacct 660
gtttcttttt tattataaag tggcaatttg taccatcatt agaaatgtac attaattgat 720
aaagttttgc attcaaatct ctttattttt gattacctat gactaaagac cacaatacaa 780
ataaaaaactc atataatata tcttattttc agaagcatat gtatatatac acatatatat 840
ttgtagaaca atccactgtt ttaaatgtaa ttttgactta aaaaatgcta tttacaattt 900
tatgacagag aaataacctc agccttttat ggtattaaaa tgagcaggga atttttatgt 960
ttgtgtctca tcttgtgcag atgaaattaa gcaatatcat ggaaaacctt ctcaagagca 1020
aggccttgta gactaaggta tgagggtgaa atcgatttgc tatttctggg tctatgtttt 1080
taaaaaatta ctggcaacgt agtcatactt acttcttcac caagaaatca gtgtcccaa 1140
attaggaatt ccaaaacttt caatatgcaa cctttaagtc tttccttgct cttactcttg 1200
tcttaatact ctcatctccc actagtggca ccgcaggact accaatctag atattagatt 1260
gttgctattt tattaacacag aagagtccta gttcttttaa acaagcttct tgaattagaa 1320
tgaggcccat aaagcatcac attgcattac attgatatct ctttattgog ccaatccata 1380
atggctaaaa atgtgtctatt aaattgtatg taaatttcaa agccaaaacg attactatga 1440
gaataggatg gcttgcctgc ctccaatttg cggaagcaca aaagtctctg aattagcaaa 1500

```

```

tggaacttca gctccatttg tttctatact ttattctgcg agcttaaaaa tcaagtaagg 1560
tgtattgacc agaaagctat tttgtgagac tctcaaaagt tttgttttca ttcttaagct 1620
cgttgatttt gaaacttatt ccaataagaa ctccagaataa acatctctta atttatatct 1680
gcgtagccaa ttgcaaagca ttactaaaag ccatatTTTT tcttgggaaa aatcccaatg 1740
caactc

```

&lt;210&gt; 79

&lt;211&gt; 1133

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 79

```

gccaaaggta accccaggcc gaatgccagg ttctcttttc cagggttctag ctcaaccctg 60
tcctgtgctc cagcactttc agtgataggc agcccactcc attttgaggc aatccatctt 120
attgacttag gggtctagtt aaaagaaatg taaaaaaatt aaagtcaagt ttgtctctta 180
gtcactatca ttcaccagcc cttttctgaa cttgtacaaa ataagttcat tctctctctt 240
acaggagaga cctccactat ccaaatatga ggagcttacc atcccaggc tccaggctct 300
ctcattgcta aatatagcac cctgggctaa atattccagc ggtgctcagc tgtttctcaa 360
atgcagagga aatgcccgat acaccattct ccttcacagc atctttacca cctgccact 420
tggtcttttt gaaccccat tagatgggta gcattttctt tatctgattg ctttccctg 480
tcaactgggt gtcaatggga ctcttagaat tggacttaga agcacgtggg ctccccgaca 540
atgatctgga cagccttgct ttgaatatag tggatctttt gcttttcttg ctttgcttgc 600
agagctcaag gaaacatatt ttctgatctt gtcacttttt gctaaaacat actgaaagt 660
aattaatagt catggctgtg aaatcttttc tctgggttgt ttctgcctta tactgatttc 720
taaactatct gcaaatatta tttttgattg taacagtatg aaagggattg agagtcttgc 780
ctacactgac ttataataaa agatgccatg aattttacct agaactctgag aaggtctatt 840
gctctcattc tttaaaaact ttttttttgt tgttaagtat ataacaaca agattctttt aaccagaata 960
attctcagca caagagaaaa agaagcagtg aataacaag taaacaaata tataatgccc 1020
gaacttacaa ttcagttgaa ggaaccatac aataacaag taaacaaata tataatgccc 1080
atagcattaa gtagtatttg aaagggttta ttcagttctg aggagcagta actcatgtta 1133
tggtatgaatg attgaagttc aggtattcat ttgtgggtgaa gaaaaataaa gat

```

&lt;210&gt; 80

&lt;211&gt; 1685

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 80

```

atattattaga agacaaataa atgtttatat tcatataagt caaaatacta catcaaat 60
tacatagtaa aatatttatg atttatgtgc aacagatag ttatgtaatt atttccctt 120
atctcttttt tttctcatta tagaacagct gtcactccaa cattttgatg gaaacttcac 180
ttttattaa gaaatatttt aacatatatt cttataaata ttttagatct agcttctaac 240
ataaacataa ttgcaattat atctcaaaact taaacaaaaa tattctagta tattcaaaac 300
tttcattagt atttaaaact tcaatcttcc tgtaagttct atattttata aaatatatat 360
taaatttgaa gcattttgtt taaaaggatc caaataaaat ttcatatttg ttagaagttg 420
ataggcttaa ttccatgtgt gtcttttctt ttcccttgga atgtgtttgt tactgaaact 480
gaatagtttg tttttgtagt tttctacagt atgtttcagt ctgattgcat cactgcaatg 540
gtgtttaaca tgttcccttt tttcccttat attacattat tatttgtagt tgtagtcaag 600
aaatgaaaga aggccaaatt taattgactt tgttttggtt tcattttgat acagttatgt 660
tataggaaga actgggtttgt ctctcaaat ttcttaacag tactttattc atatgtactt 720
tacatattga gcataaacat taaatatata gtcccatgaa ctgtgataca tctatgtacc 780
tgagtaagta atatccagat caggatatag atttctatta ctccacaaag tttcttcag 840
ctcctatcca gacaagcccc catctccctg ctactaccc ccatgagcga ccactatgat 900
ttttatcacc atggactgct ccttaacttg acatgtattc ttttgcatct gacttcttcc 960
ttccctcagg cttttgagac tttcccatgt tttaaaaagta ttgatagtat tttttcatca 1020
aattatttcc cgttaagaat tagatcacag gttgtttttc ctgtctcctg ttgatgaaca 1080
ttgatgggat tttttatttt gggctcttat gaataagctg ccgcaaatat ctttagagaa 1140
gtcatcttat gtgaaaaacg cattcacttt tcttgacgtc aaatgtccta ggagtagaat 1200
tggtgggtca taggatgaca actgaaaaag aattttccat cttgattgca ctgttttaga 1260
ctcctaccgg ctctgtagga gagttctcgt cgtaccacac tcttggcatc acttggtatt 1320
gtctgttttc gtaatggaac gtttgggtgg gtgggctatc tcattgaagt ttttaactgc 1380
agttcatcta taattaataa tgtgccatgg agatactttc ttattatgtg ccactcagct 1440
atcttctttt ataaagtgcc tgttaaaagt ttttagccaa tttttaaaaa ttgagttatt 1500
ttctctcgtc tgtaataatt tgtgggtatt ttcaaaacta ttttctagat acaatttctt 1560

```

gttcagtttg tgtattgtca aatatattac attattaacc tgcctgtaca gagcagtagt 1620  
ttctaatact gataaacttt tacctattaa tattttttct tgttcttaac acttaaatct 1680  
tgact 1685

&lt;210&gt; 81

&lt;211&gt; 2460

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 81

atattgacaa atttagtgct ttgtgacat caccaagatc aacctgtttt taacctcca 60  
aaaaattccc ttctcctgcc ctctttccct ggcaaccctg attgattatc tgatcctata 120  
atattgcctt ttctagaatg tcataataat ggagtcacac tgatgtcgcc ttttgagctc 180  
ggcatctttc cctcagctta atgcttttga gtcattcatg atgtgtgctg gtggtttgtt 240  
ccttctcctt gccgggaagt atttcattgc atgggctgac tactctgctt ctttattttt 300  
acactgagcc ttctgccctg gaagtcttg gcccagggtc ttcaacttgt ttgcacgacc 360  
acttccagct tgetgcttcc ttcatgtccc caggctcctc ctccaaatgc cagctgtgcc 420  
cacaagctgt tcttagggct cacactcgcc ttttggcgcg tgggtgggtt ttggtagtgc 480  
agaaagaatc cagggatggg aggggaaggg acggatgggt gctcaattgc tgctcacgtc 540  
tgctgcaacc tgaagcttgc atctcagcca gcagatctgc tcccttctgg gaccaggct 600  
tcagtgtcac acggtccttg gctatgtatt gggcggttga ggctttgaaa ggcgagcaga 660  
agcagcatgg acagaaggc tggggctggc cctggggctc atcatgatgc tttcctggat 720  
ctgttgcttc atctgcaagc tgagggtgtt tgttctagat gagtgtctca ggccaccggc 780  
aactgcatgt acctcctccc tttctcattt ccaatgatgt accctgtaca cgtgttcatg 840  
ctgtgtctgg ctctcatctg cacaatcgtg catagaattg cctcaagtcc tggtagaga 900  
gatgccgtgg tacttttcca ttttagattca aatggagcta aaattaagag ttttatgagc 960  
tgttaagaat gaggtagttt ttcctaggac ccccaaagac agtgcaagta atgaccgttt 1020  
ggatctcatt cgtcgatctt tgatagtatg ttctggagtc tacttcccca ggagcaggac 1080  
agcgtaaga tggagtctt gtcgcagtgg agccttgctt agttgggtat cacacagcct 1140  
ggcctgtacc tgcaaccac tggatggtgg tacatggtgg cagggacagg accacacca 1200  
gttaaggcca gaccagggtt agtgtgaccc ctgaggtaaa cactccacta agctgtgtct 1260  
tgttcatgcc ccctgctcag tgaaagggtga gtcccagac cagttgggta cctctctatg 1320  
cgaaccagag acatttcttg atccaggcca ggtgaagatt agggccagga agcctgagcc 1380  
cccggggcct caaggtaggg agccgaagag gctgccagga ctctgctggg ttgaaatttg 1440  
ccggggagga ctctgtctc cccctcagga gtatttttgt tgaggcttct ctggagggtga 1500  
agaagcaatt cccattgcag cagggttagag cgagaatcag acagaggcca aaaaccaatt 1560  
cgcttctccc cacgttctaa atgctggggc atggctgtca ggagggtctc ctggaagggtg 1620  
tctctggggg tgggtaagg ttggggcgat gccctttgga gattgctgtt ggtgttcaag 1680  
gactgttctt tgggttttga gggaaacttt agtgggattg cagtggaaatg taaggctcagg 1740  
gcacgtgggt gctctctcgg ggtgggggtga ctgggagacc tagagggaag gctgctatg 1800  
cagggggaga gcacaggact ggccctgctc tgccggcctc ctctgtccat aacctgaagt 1860  
taagtacat cccctgtcgg gacctcctg cactcatctg tcaagtgggg gcgcttccct 1920  
tccagcatca cctgcagcag acgggctctc gggagtcgtg ggttccaggc agctgtgtgg 1980  
accaggggac agacattcaa agggacgcca gccatcctta gtgacagggg ccccaactta 2040  
gcatcccttc ccttccgtta ggaaggagat gaccggaagc aacctcttca cagacacgag 2100  
cacatcgga aacctatga aagtggaaat ttctaacaaa ataaacttgc ttgtttgatc 2160  
tgttttctgt aacttttct aaatacttta tacatttttc atgttaaaga gccgtgtctc 2220  
ccgccagcac tctcaccctc ggtatgaatg tgtttcctcc acattgtata tccttcacc 2280  
ctctggctgc ctatgcagt aaataaaatt gatgtaatat aatttataag taacactgtt 2340  
gaaaccctga tcccagtgga ggctgtaacc cacctgcccc cgcaccacc cctgacccc 2400  
tgttaccgca tttgtgtgta ttaatgctga agaattaaat gtttaaagag tttaaatttc 2460

&lt;210&gt; 82

&lt;211&gt; 2027

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 82

ctccgtctca aaaaaaaaaa aaagagaatt taaattgaca cctgggctcc cattatgttc 60  
ctatggggca gcacttatct ggaaggacac gggcttttga acgctaacct ccagcagggc 120  
ctggggctgg ggagaaggcg acagctcttg actttctctg cttctgtgtt gaattttttt 180  
catagcacat gttcatggat aatgaaagtg ggtaaattat tttgaatttt taagcatttg 240  
gcatagttgg ccagggaagt tcacccccag gaatgtggtt tatagaaatt cctggaagtc 300  
acaaaaatgt aggtgcaggg aaacctcagg gagtccccc aaatggggct gcagagaat 360  
gttgatgatg gtgtttaagg tcacaaaact gtgagtcgtg gatccattt tgatagaaaa 420

```

aatgcagtg agtcacatgt ctacaatatg tgacataggg tgagaaaggg aagagaaact 480
ggcagcgttg tagactgtcg ggaaactcgc gtggcgggct gctctcggaa actcgcgcgg 540
cagtggtgctg ctctcacaga ctgcgcgggg gagtgggctg ctctcgtctg taaattttcc 600
acattgagag caccaactgc tcagcttcag agaggagcct gggcggcagg tgggaccctc 660
actccccacg gtgtcctcgc tccggctcag tctacttctc aggccctccc acgtcctctg 720
tatcttctgc atgcggaaag cccccaggt ggacgtttta agttatcttt atgctgagtt 780
aggaagaggc ccttgcggtg cctgcagaat atacctgctc ggggtagggg tcaactggtga 840
tgtcagagcg tctgcaaaact cacatatctt gtctttatga cttaaggctc cacgctctgt 900
ttcttcgtcc ctctgtaggt catcggaacc tgtcccagct ccctaatttt gccttctctg 960
ttccactggc gtatttctct ctgagccagc agacagacct ccctgagtggt gagcagagct 1020
ctgccaggca gaaggcctct ctcttgatag agcaggcgct caccatgttc cctggagggtg 1080
agtgagcgct gtgtctcggc tggggtaggg gtgtgtctctg tcagccgtgg gggctgctct 1140
tcctggtggt ggaggccagg tcccagtcct tcccacact tgtagaaaca tgcattctct 1200
ggtagggcct gcaaacctgc cctaccaaac ctgaaagagg gtcggctcat ctcggaaccc 1260
gctgcgtgcc aagccaggca cgaggagggt gcaggcatcc cgacccccgt ggggcctgtg 1320
ttctagagtg cagagacaga actggctggg aggtgcgggg cattggattg taccagtgct 1380
gggaaggaga gcaaagcagg ggaaggtctc ggcagcgccg aggtgtggcc gagagggttg 1440
tgctctgcac catgctggga tgcagaatgg aggcctgtgc cgcccagatg gactcagcct 1500
gcacagccgt gacccctgac tgcactctgg tagcttcgat ccacgcacat gtggcgggca 1560
cagtgaggct gccacctggt cagacctcgg ggtgacctt gcctgacagc atgtgtgaaa 1620
tccctcttta agatgggctt cctccgagga gctgtgaggg gtgagggtga aatccctcct 1680
taagacgagc ctctctgag gggctgtgag ggtgagggtt gaaatccctc cttaagacgg 1740
gcctccggcc gggcgcgggt gctcacgcct gtaatcctag cactttggga ggccgagggt 1800
ggcggatcac gaggtcagga gatcgagacc atcctgacta acacgggtga accacgtctc 1860
tactaaaaat acaaaaaatt agccgggctg gttggcgggc acctgtagtc ccagctactt 1920
gggaggctga ggcaggagaa tggcatgaac ccaggaggca gagcttgtag tgagccgaga 1980
tcgcgccact gcactccagc ctgggcaaca tagtgagact ccgtccc 2027

```

&lt;210&gt; 83

&lt;211&gt; 2111

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 83

```

gcccttctctg ttctatgtta tgacagaggc ggacaacact ggctgtcacc tgattggata 60
tttttctaag gaaaaagaatt cattcctcaa ctacaacgtc tcctgtatcc ttactatgcc 120
tcagtacatg agacagggtt atggcaagat gcttattgat ttcagttatt tgctttccaa 180
agtcgaagaa aaagtgggtt cccagaaacg tccactctca gatctggggc ttataagcta 240
tcgcagttac tggaaagaag tacttctccg ctacctgcat aattttcaag gcaaagagat 300
ttctatcaaa gaaatcagtc aggagacggc tgtgaatcct gtggacattg tcagcactct 360
gcaagccctt cagatgctca aatactggaa gggaaaacac ctagttttaa agagacagga 420
cctgattgat gagtggatag ccaaagaggc caaaagggtc aactccaata aaaccatgga 480
tcccagctgc ttaaaatgga cccctcccaa gggcacttaa agtgacctgt cattccgagc 540
cagcgaaccc cagcagtagg aatccgtacc ctagggatct gtctgtcatt tctctgttgc 600
tcttgtgatt ggcaagtaca gtatcctttg ggaaggccat cccctcagg actgtcctgg 660
ctccgacctt tgtgtacact gcagacgctg gttctgagga actggtgttt cggcctcagt 720
gaggttgctt ggatgggatc tgtattagac ttgagtgagc gtctctcagc actgacccaa 780
ggagttctgt tatggtactg tactgttoca gtcactgggt ctctcctcat gtcctctcgc 840
cccatgaggt tgtgttgtgt cttctaagcg tggtagtagt gcttgccacc tggtcaccag 900
acctccaaat atggctgcca ccaccaggac ctttccagtt actccttata tgtgtgttct 960
atggaggggc agggaaaagg tggcacttgt gagtgtgtgt ggattggcag ggggtccatt 1020
cactttgggt tccatcttgc tttaaatttc ttcatatttg ttaagagacc tctttttgat 1080
ctgtattggg ctaaccagag ccaaatactt ttgaagagtt tcccagggac tagtcatggt 1140
aatagcatat aattgatctg aatgagatgg agagaagaat gaaggggtgg tggttctggg 1200
tttgatttga gttcacctgt gggcagtggt cagtgggcag tgtcttgggt aaagggaaac 1260
gatactactt ttgacctcac cgtaaagtac tcaactagta atatttctct ctctctttac 1320
tcccactttt tacgtttgca ggtgccaaag taatgtccac ttttcccttt catgctgcat 1380
attaactgggt taattatact gcagaaacct tttcacctcc actagtctga tacagtacat 1440
ctgtacttcc atataccttg cactgatttt gtctgagtg cctggggagaa gtagaaaatg 1500
attgaaagtg acttccgtat ctacagccat gactcagcaa ggcagaatgg ccaccctgc 1560
caaagtgtgc tctcttctca acagtgcctc accctccctc taggattaaa gtgcttctgc 1620
ccttccacga actcctcctc catttctctt ttgggatttg tcaccatcct tetattctct 1680
ggctctctat ttttgggtgt gttcaagtga aggaagagat gttccctcta atttctctct 1740
agccattat accctgctat cttggggcaa cttttgatgt atgacatgtc acccttccca 1800

```

acttggctctc ctccaacatg ctgtcttcat gtggagccct caccacaatc cctgactccg 1860  
 gtcatttgtg cctttctctt gtcactctctg tacactactt atattcactg tgggttgggg 1920  
 gagctaattt taagcatgtt cagtggcagc tcccctccag ttccagtgtc actgttaaaa 1980  
 tttatcaaaa agcaacttca ctagggtgtt tottaaggga taaaggcctt ttacagaagc 2040  
 taaacccttc cccacatgtg gtagaatgtg ctcttctata tctactctc aataaagcat 2100  
 gttctctgcc c 2111

&lt;210&gt; 84

&lt;211&gt; 1167

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 84

ccgctttttt tttttttttt tttttttttt tttgagacgg agtcttttget gttgttgccc 60  
 aggttggagt gcaatgggtg aatctcagct cactgcaacc tctgcctcct gggctcaagc 120  
 gattctcctg cctcagcctc tcaagaagct ggaattacag gcatgcgcca ccacacctgg 180  
 ctaatttttt gtatttagta gagatggggg ttcacatgtt tggtcaggct ggtctcaaac 240  
 tcctgaccac aggtgatcca ctggccttgg cctccaaagc gctgggactt caggagttag 300  
 ccaccgtgcc cgccaggaa attgtctcct atttgaaagg gttatgcagg aaaatgcctc 360  
 tgtttgtcag gtagcagatc cacatgctct tctgctattg gggctctctg atagaccca 420  
 atagtttaca caaatggaat gcaggatctc tatatttata cccaatctg tgcaacagaa 480  
 cttgaaaaca gaagcccaat aaaagtctac tctttcattg ggtgaacaaa gactaaaaga 540  
 atgaatttat gatgtactga caacagttag gctgtaattc ttatagacag acctctaat 600  
 gttccactc ttgttttagt agcactatct aatagaatat gtgagttata catatatttt 660  
 aaaatgttcc agtagtcaca ttttttaaaa aggtaaagag gcatgggtga aattaatttt 720  
 aacactaaga tgtatttaac tcaatatttc caatatatta tcatttcaac ctattaataa 780  
 catgcaaagg tattcatgat atattttgca tccctttttt catactaaga cttcaaaatt 840  
 cactgtgtat tttgcaacta cagtacatcc agtgtggacc agctacattt taaatttggc 900  
 tgctggtag cacactgggt cagttttaga tgatgtgata aattgtctct ttcaatgtat 960  
 tagattcctg aggtgccat aacaaattgc cacatacttg gtggtttaaa agaacagaca 1020  
 ttgactctca aagttttgga gatcaaaagt ccacaattaa agtgtcatca gtgtcacgct 1080  
 gctacgggag attcagggtc ctgcctcttt cagcctctgg tggttccagg cattccttgg 1140  
 cattgtctca acctctgctc ccagaaa 1167

&lt;210&gt; 85

&lt;211&gt; 1641

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 85

gtcacaaaat ttataccata ctgttttcca cagtgtactgc gccatttttag gttccacact 60  
 gtagtgagca aggggcccagt cgtccttgtt tccggttatc tttgttgcg ttgttttgtt 120  
 ttttagagat ggggtctcac tatgttgccc aggtgtgtgt caaactcctg agctcaagcg 180  
 attcccccca cattggcctc ccaaagtgtt ggggtacagg cgtgagccgc tgccctgccg 240  
 ttgtttttat ggactctggc ctaagcctgt gcttttgatg tcatatgcaa cccattgcca 300  
 aatccattgc catggagctt ttccctctgt tttttttcca agtgttttat ggtttcagg 360  
 cttatattta ggtttgatcc atatcgagtt actttttgta tatggtgta ggtaaagggtc 420  
 cagcttcatt cttctggctg tggatatcca gttttcccag caccagttgt tgaaaagact 480  
 ttcttttccc cattgaatgg tctgggcacc cttttcaaaa atcagttgac caagtattac 540  
 aaagggttat ttctgtgctc tctattttat tcccttgggt gatgtgtctg tctacatggc 600  
 agtaccacac tgattacttt cagctttgga atcaggaggt atgtcatctg ccattgaatg 660  
 agtatccact gtgtgctagg ccttgtgggt ggagcgggtga cttggacatc gtccctgctg 720  
 gtccagtgcc ctgccgtccc cctgagtcct gactttatc tggatagtgg aggttggcac 780  
 aaaaatatct cccagttaaa ggaattataa ttcagtcacc tgactattac tgacaagtca 840  
 aaaaaaatg actcagtggtt tttagtacca aggtagcagt gttccatttg atgattcagc 900  
 atatagcagg ttctcttagt gaacatttct tctactttta tcagaagcag atttcacctg 1020  
 aacgaagtta gtttctaagt acttccattc tctactttta tcagaagcag atttcacctg 1080  
 gaatattcta taaacccttt gaaaccctct attttagcca tgggtgtctc taagcaaatg 1140  
 aattttcttg aacttaataa acaaattgat agttgaatta accttttaaa ataaaatgta 1200  
 aagtgtagct aagaaatcat tatttaagg tattccaacg ataaattatt tgggatgggg 1260  
 ctggggagggt caggtatatt gaggtgtaag ttacatatgg taaaagtcac ctttttaaa 1320  
 tgaacaattt gatgaatttt gaacaacttc agttatgcaa ccaccacaac atgatggatt 1380  
 gtttttagtaa atgttcttct taccaggagt tcatccttgt ttaagtctgg agtttgcctg 1440  
 gtttaagggtg cagggtgctg aaagtgtaat aaaattgtag gttttttaat ctttttttta



atctcttact ggaaggatga attatagttt aaatagtaat aatgcattgt cgttggtaca 1500  
 cttactcttt aagtaagtta gggtcattatt ttccgaaatg aatgtagtag aatttcagaa 1560  
 tggcttctgg aacatgtttc ctgttaaaag gcctagaata tctgcagtg gtagagtttg 1620  
 ctccattcca gaagatagcc c 1641

<210> 86

<211> 1892

<212> DNA

<213> Homo sapiens

<400> 86

gctgcttcca cctaagctac tcacaatgcc ccgccttggc acttcagcca caacaaaccc 60  
 ccacagccac aatgggtgcat atgcccctgag gcttgggaatt ggggtgcttt tatgtacaag 120  
 gctagctggg ctttttcac cgttgccctga agagacacct gtttgccact cctctccctg 180  
 gctgagtcct ctggcatcca tgggtgggtgg tcgagccaag aatttggtgt atggagcttg 240  
 tgtggcgcg ctgggtggccc tggtagctgc cgtgcgcttg tggcttcgcc gctatggtaa 300  
 tctcaagagc ccgagccac ccatgctctt tgtgcgcttg ggactgcccc taatggcatt 360  
 gggtagctgt gcctactggg cattggctgt cgggggcaga tgaggctccc ccccgctctc 420  
 gggctctggt ctctggggca tccatgggtgc tgcctcgggc ttagcaggg ctgggtgctt 480  
 cagggctcgc gctgctgctc tgggaagcctg tgacagtgt ggtgaaggct ggggcaggcg 540  
 ctccaaggac caggactgtc ctcaactccct tctcaggccc cccacttct caagctgact 600  
 tggattatgt ggtccctcaa atctaccgac acatgcagga ggagttccgg ggccggttag 660  
 agaggaccaa atctcagggc cccctgactg tggctgctta tcagttgggg agtgtctact 720  
 cagctgctat ggtcacagcc ctcaacctgt tggccttccc acttctgctg ttgcatgcgg 780  
 agcgcacag ccttgtgttc ctgcttctgt ttctgcagag cttccttctc ctacatctgc 840  
 ttgctgctgg gatacccgtc accaccctg gtccttttta ctgtgccatg gcaggcagtc 900  
 tcggcttggg cctcatggc cacacagacc ttctactcca caggccacca gcctgtcttt 960  
 ccagccatcc attggcatgc agccttcgtg ggattcccag aggtcatgg ctctgtact 1020  
 tggctgctgc tttgctagt ggagccaaca cctttgcctc ccacctctc tttgcagtag 1080  
 gttgcccact gtcctgctc tggcctttcc tgtgtgagag tcaagggtg cggaagagac 1140  
 agcagccccc agggaaatgaa gctgatgcca gactcagacc cgaggaggaa gaggagccac 1200  
 tgatggagat gcggtcccg gatgcgcctc agcacttcta tgcagcactg ctgcagctgg 1260  
 gcctcaagta cctctttatc cttggtattc agattctggc ctgtgccttg gcagcctcca 1320  
 tcttcgcag gcatctcatg gtctggaaag tgtttgccc taagttcata tttgaggctg 1380  
 tgggcttcat tgtgagcagc gtgggacttc tcttgggcat agctttggtg atgagagtgg 1440  
 atgggtgctgt gagtcctgg ttcaggcagc tatttctggc ccagcagagg tagcctagtc 1500  
 tgtgattact ggcacttggc tacagagagt gctggagaac agtgtagcct ggctgtaca 1560  
 ggtactggat gatctgcaag acaggctcag ccatactctt aatatcatgc agccaggggc 1620  
 cgtgacatc taggacttca ttattctata attcaggacc acagtggagt atgatcccta 1680  
 actcctgatt tggatgcatc tgagggacaa gggggcggt ctccgaagt gaataaaata 1740  
 ggccgggct ggtgacttgc acctataatc ccagcacttt gggaggcaga ggtgggagga 1800  
 ttgcttggtc ccaggagtgc aagaccagcc tgtggaacat aaccagcccc cctctctact 1860  
 atttaaaaaa atgtgtttta aagtgggtgt gt 1892

<210> 87

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 87

tgtttattca attctttggt ggttttgtgg actagaagag ggcttttagat ctgggctgga 60  
 atctgggtct atccacttct atgataggct cattattagg tgttagtttc ttatgctata 120  
 aatggatgtt ataaacttat ttcaaagagt tgttagagat gaaatgaaaa aacatataaa 180  
 tcttcaagt gccaatgaat atgtgttgca ttattctgtt tttgatatga attatatgtc 240  
 tctccagata tgcataattg atctctatct gctgatatag gtgatattta gcatgttagc 300  
 agttccattc acttaagctt ctctgtatat agaaataaat ggacacaatg aaatggactt 360  
 catttgtata atgggatgtt tggaaaagag tgtattatat gtatttaaag cagaatagga 420  
 aaacccatt ccaactgagg aggagaattg cttgaacctg ggaggtggag gctgcagtga 480  
 gctgagatcg cgtcatcaca ctctgcctg ggcaacaaga atgaaactcc atctcaaaaa 540  
 aacaaaaaca aacacaaact aacaaataaa aacccaaaaa agctttgtag ttgtttccta 600  
 tcaacttaaa catggcattt tctgtgagag aatttaacat tcaactagag tatcctgttg 660  
 agatgacatt taataagata aggataaact aaaaggtaaa ggtatgtgtg tttgcattaa 720  
 ttttgactgt gaatttttcc tcaagtatac aactgaagcg ttttataatt gtagataaat 780  
 tgcctcagtc attttgtgtg tactactgta ggggtgacaat attattagaa tttttgcttt 840

```

cctattaaata attcaccttt atttaagtgg gtatgtatga tgaagtttac catatagttt 900
gtttttttgta atgaacata cttaataata atactttagt atttagtata atactttagt 960
atatttcattt tataggaaga gattaaacac tctactaggg catagttact gaagatgaca 1020
tgctttgtaa cagttctatt ttgtattaat ataagagatt atgttttatt ttttaaagag 1080
tctctaagaa atgaacaatt tctagatttt atgagaaaca agacacagtt ctctgaattc 1140
tgctgtataa tcccttcctt taaatccctg gaagattaaa tttgcaaattg gaagatggca 1200
tagcacgttg agaccctca taacagaata tgcaaaattc cattattcat ttttatggtt 1260
atoccaaaga tattgatttg ttaaagatta agaacatacg tttttgcacc tttatatatt 1320
cagattatgt ataagaggaa tttaggggaa tatcatatag tggctaagtg cacaggcttt 1380
ggaaacagat ttcctgaatt cagattcaaa tgtcacaatt tgctagctgc atgattttga 1440
gcacttttagc ttcactgtag gggataatgg gaccacatt ccagggttgt catgttgttt 1500
aaatgatata aaaagtttag ggccagtgtg gtggctcatt tctgtaatcc cagctacttg 1560
ggaagctgag gcaggaagat catttgagcc caggagtta aggctgctgt gagctatgat 1620
tgagctactt tgetccagct ctgggcaata gagtgaacc ccatctct 1668

```

&lt;210&gt; 88

&lt;211&gt; 1849

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 88

```

caactcagtt ctgcctcctg actatgacag taatcccacc cagctcaact atggtgtggc 60
agttactgat gtggaccatg atggggactt tgagatcgtc gtggcggggt acaatggacc 120
caacctgggt ctgaagtatg accgggcccc gaagcggctg gtgaacatcg cggtcgatga 180
gcgcagctca ccctactacg cgtgcgggga ccggcagggg aacgccatcg gggtcacagc 240
ctgcgacatc gacggggacg gccggggagga gatctacttc ctcaacacca ataatgcctt 300
ctcgggggtg gccacgtaca ccgacaagtt gttcaagttc cgcaataacc ggtgggaaga 360
catcctgagc gatgaggtca acgtggcccg tgggtgtggc agcctctttg ccggacgctc 420
tgtggcctgt gtggacagaa agggctctgg acgctactct atctacattg ccaattacgc 480
ctacggtaat gtgggcccctg atgccctcat tgaaatggac cctgaggcca gtgacctctc 540
ccggggcatt ctggcgctca gagatgtggc tgctgaggct ggggtcagca aatatacagg 600
gggcccaggc gtcagcgtgg gccccatcct cagcagcagt gcctcggata tcttctgcga 660
caatgagaat gggcctaaat tccttttcca caaccggggc gatggcacct ttgtggacgc 720
tgccggcagt gctgggtgtg acgaccccca ccagcatggg cgaggtgtcg cccctggctga 780
cttcaaccgt gatggcaaaag tggacatcgt ctatggcaac tggaaatggc cccaccgctc 840
ctatctgcaa atgagcacc atgggaaggc ccgcttcggg gacatcgctt caccacaagt 900
ctccatgccc tcccctgtcc gcacgggtcat caccgccgac tttgacaatg accaggagct 960
ggagatcttc ttcaacaaca ttgcctaccg cagctcctca gccaacggcc tcttccgctg 1020
catcgttaga gagcacggag accccctcat cgaggagctc aatcccggcg acgccttggg 1080
gcctgagggc cggggcacag ggggtgtggg gaccgacttc gacggagacg ggatgctgga 1140
cctcatcttg tcccatggag agtccatggc tcagccgctg tccgtcttcc ggggcaatca 1200
gggcttcaac aacaactggc tgcgagtggg gccacgcacc cggtttgggg cctttgccag 1260
gggagctaaag gtcgtgctct acaccaagaa gagtggggcc cacctgagga tcatcgacgg 1320
gggtcaggc tacctgtgtg agatggagcc cgtggcacac tttggcctgg ggaaggatga 1380
agccagcagt gtggaggtga cgtggccaga tggcaagatg gtgagccgga acgtggccag 1440
cggggagatg aactcagtg cgtggatcct ctaccccggt gatgaggaca cacttcagga 1500
cccagcccca ctggagtgtg gccaaaggatt ctcccagcag gaaaatggcc attgcatgga 1560
caccaatgaa tgcattccagt tccattcgt gtgccctcga gacaagcccg tatgtgtcaa 1620
cacctatgga agctacaggt gccggaccaa caagaagtgc agtcgggcta cgagcccaac 1680
gaggatggca cagcctgcgt ggctcaagtg gccttttttag gtgggtatct ttcagccgcc 1740
tctagaatct ctgacctct ctctcgggcc tcatatcttt ctctaggcct tggactttgc 1800
cttcagttan atnnacttta aatcccatca ataaaggaaa aaacaaaaac 1849

```

&lt;210&gt; 89

&lt;211&gt; 1508

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 89

```

acaggctcct ggcaaacccc cacctcccag cctcgeccat gttgccttgg actgtcgtca 60
tggcacttgc cctgagacca tctggggcga cctcttctct ccttttatct cagagcact 120
cccgctgcct cccccaact cactgtgcgt tctgaaactc atcgtctgtt gtcagcaaaa 180
ttcctgtgat tccatcttct cggaaatagga agttccctct gccttctggc cttactgaag 240
cccactcagt accctgcagc cctcttaagt ggaatctttt tctcccaact ccccatgtgc 300

```

```

ggtagagccta gagcaggggt gtgtccttgc ctcttcctca acctcctcac ttggaacagt 360
ctgtcttcac ctctacccct cacagccagg caggcatatc tcttggtact ggtgaaggca 420
ctgcctccaa agtctggatt gaggcacccc tccctcaagc caggccctcc ctcatgtggc 480
gcttccctgt gctcttcaaa ccaccaggcc ctccaagctc ctggcccagc ccttttctgc 540
caaccatcag cccctctttc ctgtcttcc tcccagccca gtttagaact cttggtcatc 600
tgcatgcact tcccatagtg cctccatcc ttcgtttatg ctacactggc aaggctctca 660
ccctggtagc agccagctgt tcttcgcct gccctgcacc tgcttagacc cccagagcca 720
caacggctcg cgttccatcc atggcccagg tctgtgtttc cctagacaac tccctcatgc 780
attctctgag gaaacttaac agcctttgtc tcttcaggcc tccagacccc tccctgccag 840
cttagctaag gactccctt ctgttccac aaccacccca cattagctgc cttccttacc 900
ctacctgagg acatgcctcg ggtgtgtggg agatacagtg ctctcaaggg tctttcttct 960
ccccttctcc ctccatcgtg agttttccta caccggctcc ttcacgccag cctccacatg 1020
tgcccacagt gtcattgggac gacacagagc aaaagcccag caccctcagc tgctcctgtc 1080
ctctgcccc ttttatcaca gctatcacag ctccccggaa agctgtcttc tctgtccatg 1140
gcctcacctc acccagggca ctggccttgg tccacatcaa ggggacctga agcttccctg 1200
aagcctctag cctgtggtgt gcacgtacaa gcctcaggcc ccatttgtcc agcctgtcag 1260
cagggtggaa atactaagtc accctcttct gggttatgtt aattttccaa tttttctcaa 1320
cattactgaa atgtctaaat gtggaaaagt tgacatcatt ttacagtga caccacatac 1380
ccaccaccta gattttacca ttaccaattt cctgttccgt acttgatat tcacatatat 1440
ccaactattc atccctgctt caatccatcc tntttttatt gcatttcaaa ataaaatgtg 1500
aatcaggg                                     1508

```

&lt;210&gt; 90

&lt;211&gt; 1532

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 90

```

gtttttaatg ccttttatct aaacaaaaca acgaaatcca tagacttctg gaataccagc 60
aaattgtatg tgttttcagt tagtcatcat gttatattaa cagttcatta aacaaatgac 120
aatttgtaaa ttcagtccac agaataagcat actgaaaggc tacacatgta gaattattag 180
ataaaaagga acatcactgc ccttcataaa ttctagaaag ttcattgcat tcattattca 240
ccttttaatt caaaactgga atttgatgat gattgcaact gcagctgagg gccataaact 300
aaaaaatttt actgggtgtg gaaaaggggg ctgggaagag ccgtgggcta accatcctgt 360
taacaaggag tgtctcctca tgaagggtggc agccaccaga acgaggtgct gcctcctacc 420
ctacaaatag caagggccca tgcaaatgaa aagttagcct ttgagatgag tctagataat 480
aatgcattgg agatttcctg ttaaaactagc actcttaaga acatagtggc attttatttc 540
aatcatagta taaaactcac tgggtttattc aattttatta tatttttagat gttggtatta 600
atataccaag caagattctt ttttaagttt ctatttccc tttctaaaag ctctatatcg 660
ggttcttcaa ttacattctc aaattatata aatactacat gttttctgac aaataaccgta 720
ttttggtaat gttaggctgg aagtaaaacta gattctttct gtaactttga cttatcctgc 780
aatgttttga tgatgggaca catcaccctg ggaactgtct caaagcaca ccacatctta 840
gggcccctacg ctactcccc aaaggcagat ccgctccaa aactccaaat cctcatggtc 900
tcaggcatcc ctttttaaca cgggcacaat cgtcacctct ttgaaatgag agcgtgcttg 960
attattcctg gcctccagtt gctggccttc atccggtgtt ggggtggggg agcctgtcgg 1020
ttcttgaaaa atagctcggg gataactaag acaaaagacc ctgaggagct ctgcctcaac 1080
tgtggcaagc tgggtcttcc acgtcaccaa gtgtcatttt caccgtgcct gtatggtccg 1140
ctgttcatcc tgttagcgga ccccgaaatc aggcaggaaa ataaagctca gtgggagggc 1200
ctcggagcaa gacaatccca ccaagatgga ctcggttga ttaacgtgag tgaacctctg 1260
aggaccagaa tccagactag taattctcca tcccggctgc tcgttagatg cccggaccga 1320
cccccccaga ccaattcaat cagaacattc ggaggggcct gtaaaatctc ccggggagat 1380
tccggtacga aagccaaaga ctacagcgc cgttctccac ccgctgcag cggccagcgc 1440
gggtccctct tagggaattg aatgcaggcc ccaggcctcc tctcagagta tccagtggtg 1500
accgatggcc agctcacaaa cgcgcagtgg gt                                     1532

```

&lt;210&gt; 91

&lt;211&gt; 1951

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 91

```

atcgacataa agctggaaat ggagaagagg ctgcaggatc tggagaatca gtaccggaaa 60
gaaaagggaag aagccgatct tctgtggag cagcagcgac tgtatgcaga ctccggacagc 120
ggggatgact ctgacaagcg ctcttgtgaa gagagctgga ggctcatctc ctcttgcgg 180

```

```

gagcagctgc cggccaccac ggtccagacc attgtcaaac gctgtggtct gccagcagt 240
ggcaagcgca gggccctcgc cagggtttat cagatcccc agcgacgcag gctgcagggc 300
aaagaccccc gctggggccac catggctgac ctgaagatgc aggcggtgaa ggagatctgc 360
tacgaggtgg ccttggtgta cttccgccac gggcgggctg agattgaggc cctggccgcc 420
ctcaagatgc gggagctgtg tcgcacctat ggcaagccag acggcccccg agacgcctgg 480
agggctgtgg cccgggatgt ctgggacact gtaggcgagg aggaaggagg tggagctggc 540
agtgggtgtg gcagtgagga gggagccccg ggggcggagg tggaggacct cggggcccac 600
atcgacaagc tgacggggat tctgcaggag gtgaagctgc agaacagcag caaggaccgg 660
gagctgcagg cctgcggga ccgcattgctc cgcatggaga gggcatccc cctggcccag 720
gatcatgagg atgagaatga agaaggtggt gaggtccctt gggccccgcc tgaaggatca 780
gaggcagcag aggaggcagc cccagtgac cgcatgccgt cagccccgcc cccctcgcca 840
ccactgtcaa gctgggagcg ggtgtcacgg ctcatggagg aggacctgc cttccgtcgt 900
ggctgtcttc gctggctcaa gcaggagcag ctacggctgc agggactgca gggctctggg 960
ggcggggcg gggggctgcg caggccccca gcccgtttt tgccccctca cgactgcaag 1020
ctacgcttcc ccttcaagag caacccccag caccgggagt cttggccagg gatggggagc 1080
ggggaggctc caactccgct ccaacccccct gaggaggtea cccccatcc agccaccctt 1140
gcccccggc ctccgagtcc ccgaaggctc caccatcccc gcaggaaact cctggatgga 1200
ggggggcgat ccgggggagc gggttctgca cagcctgaac cccagcactt ccagcccaa 1260
aagcacaact cttatcccc gcccacccaa cctaccag cccagggcc cccagggccc 1320
cgctaccccc catacactac tccccacga atgagacggc agcgttctgc cctgacctc 1380
aaggagagtg gggcagctgt gtgagtccca catcctgggc agagggcctg gtggggcccc 1440
ttgctaggag aagggaagac gcccgagacg ctgcttcccc agaagtgtg gggcagggag 1500
gcccaggaga tgagagagaa ggtccgagta ggtgatagaa gacaaggggg agaccgagcc 1560
ggaggctgag gaaaggaaga gggcacggag ttgccaggag caaaccaaa tgaagagaga 1620
gataggaagc tgcctcgggg ccaccccttg caaaggggg gtgtcccaca aacgctgcta 1680
tgggtggggg ggggggctgg ggtgctgcgt agccagtgtt tgactttctt ttcaagtggg 1740
ggaaagtggg agaggactga gagtgaggca agttctcccc agccctgtc cgtctgtctg 1800
tctgtctgtg gtggtttctg tttcttggga ggcattgtag gatcataagt cattccccct 1860
cccttccagg cctcctgcta tatttggggg acctgactgg tttggtgga gtcccatgag 1920
gatgtggggc ctttaataaa ggatagcaaa c 1951

```

&lt;210&gt; 92

&lt;211&gt; 1505

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 92

```

cagaattccc atatggccct gggcttttct ttcttgggag gcttttcttt actacttcat 60
gctcttgact agcataggtc tgttcagatt ttccatttct tcatgattca atcttgatag 120
gctgtgtgtt tctaagaatt tgtccagttc atctaggtta tccaattctt tgatatgtaa 180
ttactcatag tactcttaat cctttttatt tctgtaaaat cggttgtaat gtctcctcct 240
ggtttttagt tgtttttctt agtcaactct agctatcaac aaactcttgg tttcatttat 300
ttttctctat tgcttttctg ttctctatct tgtctctgct ctaatcttta ttattattat 360
aatctccatt ctgctggctt tgggttgatt gctcttcttt ttctagtctt ttcagatgta 420
aattttgggt tgacttgaga tcttaatttg tttaataggt gtatttacag ttacaaattt 480
ccctcctacc actgctttga ctgtacctgt ttttttgat attacgttta agttttcatt 540
taccacaaga tttttctaa tttcccttgt gagttcccca ttaatctgct ggttgagagt 600
gttggttaat tttcacataa ttgtgtactt ttcagttttt tgtctgttac tgatttctag 660
tttcatccca ctgtggccag aaaagatatt ttatttcctc agtcttttga aatttgttga 720
cttgttttagt catctaactat actgtctatc ctagagaaag gtccatttgc acttgagaaa 780
aacgtgtgta ctgctgttgt gctgttagg tccagctggt atgatgctgt tcaagttctg 840
tcttgcgact gatcttctgt ctggttgctc tatccgttac tgaaagtggg ctactgcagt 900
ctcctactct tactgtagaa ctatccattt cttcctttga ttctgtcaat gtttgtttca 960
tatattttgg gctctgatgt ttggtgcata tataattacat cttggtgaat tttcaaactt 1020
tttaaatttc aacatgaaga tgaaattata ggatgtctgg gatttccttt gaatccgtgg 1080
ggctgggagt aactataaat gaaacaagat tggccgggaa tttgaggctg caaggatagg 1140
tacacacagg ggagtgaagc agggcttgga gcagatggta aagattgttg gcttttccag 1200
ccatggggct ctcttgccac ttggcagtag tggcatgaag ccgccaccag ggggccacgc 1260
accagtgcag gtggctgtgt tccaaacttt ttggacaata aaatctgaat ttcacatact 1320
tttcttatgt cattagatat taccctttta catcttttca ctatttaaaa atgtaaaaat 1380
cattcttaac atttgggctg tgcaaaaaca gctggtgggc ccaattttgg cctgtatttc 1440
acttgccaac ccgatttata cttttgtatc tatttgacat tttccattaa aagttatata 1500
acact 1505

```

<210> 93  
 <211> 2280  
 <212> DNA  
 <213> Homo sapiens

<400> 93  
 gactcgaatc ccgttgccga ctgcgcctct cggcttctgc tccggggcct ctccctgcc 60  
 cgcgccgggc cctgaccgtg gcttcttccc cggcctgato tgcgcagccc ggcggggccc 120  
 cagaaggagc aggcggcgcg ggggcgcgct gggcggggga ggcgtggccg gagctgcggc 180  
 ggcaagcggg ctgggactgc tcggccgcct cctgcccggc gagcagctca gaccatgtcg 240  
 cctgaagaat ggacgtatct agtggttctt ctatctcca tcccacatcg cttoctcttt 300  
 aagaaagccg gtccctgggt gaagagatgg ggagcagccg ctgtgggcct ggggctcacc 360  
 ctgttcacct gtggccccc cactttgcat tctctggtea ccatcctcgg gacctgggcc 420  
 ctcatcagg cccagccctg ctctgcccac gccctggctc tggcctggac ttctctctat 480  
 ctctgtttct tccgagccct cagcctcctg ggccctgcca ctcccacgcc cttcaccaat 540  
 gccgtccagc tgcctgctgac gctgaagctg gtgagcctgg ccagtgaagt ccaggacctg 600  
 catctggccc agaggaaagga aatggcctca ggcttcagca agggggccac cctggggctg 660  
 ctgcccagcg gccctccct gatggagaca ctgagctaca gctactgcta cgtgggaatc 720  
 atgacaggcc cgttcttccg ctaccgcacc tacctggact ggctggagca gcccttcccc 780  
 ggggcagtcg ccagcctgcg gccctgctg cgcgcgcct ggcgggcccc gctcttcggc 840  
 ctgctgttcc tgcctctctc tcacctcttc ccgtggagg ccgtgcgga ggacgccttc 900  
 tacgcccgcc cgtgcccgc ccgctcttcc tacatgatcc ccgtcttctt cgccttccgc 960  
 atgcgcttct acgtggcctg gattgccgcc gagtgggct gcattgcgc cggctttggg 1020  
 gcctaccctg tggccgcca agcccgggcc ggaggcgccc ccacctcca atgcccacc 1080  
 cccagcagtc cggagaagcg ggcttctctg gactatgact atgagaccat ccgcaacatc 1140  
 gactgtatca gcacagatt ctgcgtgcgg gtgcgcgatg gcatgcggta ctggaacatg 1200  
 acggtgcagt ggtggctggc gcagtatac tacaagagcg cactgcccg ttctatgtc 1260  
 ctgcggagcg cctggaccat gctgctgagc gcctactggc acggcctcca cccgggctac 1320  
 tacctgagct tctgaccat cccgctgtgc ctggctgccc agggccggct ggagtcagcc 1380  
 ctgcgggggc ggctgagccc agggggccag aaggcctggg actgggtgca ctggttcctg 1440  
 aagatgcgcg cctatgacta catgtgcatg ggcttcgtgc tgctctctt ggccgacacc 1500  
 cttcggtaact ggcctccat ctacttctgt atccacttcc tggccctggc agccctgggg 1560  
 ctggggctgg ctttaggtgg gggcagcccc agccggcgga aggcagcatc ccagcccacc 1620  
 agccttgccc cggagaagct ccgggaggag taagctgtca cgacgtccc tctgccagct 1680  
 ggtcccgga attctgtgaa ccaggctgct gtctctccc cagaaagagt ccttaccttg 1740  
 gagagggtcc tggagagaat ttctcttccc ccagctaaat accctgcctg caactgaagc 1800  
 agaccgggg gtgtcctccc tgccctctgc ccagaggcca cctccactcc taaaaaagt 1860  
 attgtccaga caagagtcac tggccctctg tccagcttct gggatccag agagcactgc 1920  
 atttccccaa aacggaagg gcccctgggc agtgggtttt gggcaaattc cctttctttg 1980  
 catccacaat gtggggctcg agcttggggg caggctcctg gagtgggaag cctcttctt 2040  
 gtgtctttcg ctccactttt agctcatcgc accaatattg cagacttggg aggaagcata 2100  
 agcttcccat ttcacaaagg ggaaactgag gtgcgggtgc gcgggcctgg ggacggcctg 2160  
 cccatggctt ccatctgagc cactcggga cccagcgcct cctggcgccc tcttctctc 2220  
 gcttggccta tgacaggtca ccgtgtgtaa atctttccca ataaagtgtt gcacaaaggc 2280

<210> 94  
 <211> 2828  
 <212> DNA  
 <213> Homo sapiens

<400> 94  
 cactgatctt tagattgata caattgctgt tttattcatt ggttcatata cacctaataga 60  
 gattgctatt ttaattttca ttgttaagac acacttaaata tccataact taaaaacgta 120  
 tatgaaaaat ttattttcac aaatcgatat acctattttt tgaacagtag tatgcataat 180  
 gctttacaaa atgacagtgt aaaaatggca ttcagattcc cgtttctaag atgcttgaac 240  
 attttgattt ttactcatta gaagttaat tgttattagt caacaaggag aaacaatgag 300  
 gaacttacag aggagtgtca gttgtattga aagattagga gtgaatgttt tatcttgtaa 360  
 aaagatatct cagcccctag gatggtctac agaaatgaca ataagctccg attcttattt 420  
 taatttttta ttttttctgt ttctctgtct cctgtctttt cctgcgcatt ctctctttta 480  
 tccccaacct ctctgtttta tttctttgga tccgtcaaag ttggaaattg aacagtattt 540  
 ctgatataat atgtagtatg agttctgaaa tcttggtgaa ttaaattcat gaatgctacc 600  
 atagtgattt tattaagggt tggcttttga ttacatgttc ttcaagctag ggttatggga 660  
 gtcagctagt aggtaggctt agtttgattg tctacttcta acatttgttt ttcttctctg 720  
 aaataacttt catgaagtta gatacaggct tttgtacagg atcattttgt gggaaatggt 780

```

gggtctgaaa agtaagccat tggattgat aaaagcagag agaaaatgaa aaagaaaaaa 840
ggtaggaaag atgtgccttt tagccaataa atagaagttt aaaagacatg aaagaatgag 900
atgtaatttt tttaggagct ctaatttagc catgaacaca gccaccatta ctctgcagaa 960
agggaaaaaa aggggattct gtttcagaat ttgctgtatt aaaaactatt tgagaaagag 1020
aacactttat tgaaaattga aaattattgg ctaacattca gtgtgagggg atgtcgaagt 1080
accatccgac taaaaacaaa ttaagtgtag tcgtgagtca aacatattgt ttcttccaaa 1140
atttaaatga aattagtttc atatgagtgt tttctttttt tcttgagaca gggctctgat 1200
ctgctgcccc ggctggagtg cagtggcatg atcacagctc actgtagctt tggcctcccc 1260
ggctcaagtg atccttccac ttcagcctcc tgagtagctg ttactacagg catatgccac 1320
tacacttggc taatttttaa tttttttgta caattggggg tccactgtg tttcccaggc 1380
tggcttgaaa ctctgggct caagcgctc cagcctccag ctcccaaagt gctgggttta 1440
caggcatgag ccactgcacc cagccaattt tatgtgttga taacaactct gctgaactta 1500
ctgtttctta taacttatag gttgttcttc ttgggattac caagtaaag tcttttgcag 1560
tagtgacact ttttctttct tttcaatcta agattttgct tttttctctg attgtgtaaa 1620
gttagcactt ctaaaacaat actctcagca tgtattgcat gattacatac tttttcttct 1680
tatattaata atatgaagta tatttaattga atgctcaata ttgaattaat cttgaacttc 1740
tggaatatgt catataattc tattctttta aatgagttat tatgaaaaat ttttaaccata 1800
cagaaaagtt gaaatttatt cgggtggaat ctgtatatcc tctgtcttaa ttttaacaatt 1860
aacattttgc tatatctcct cttttttttt gttagaccac ttgaagctgt ttttgagaat 1920
acagattcca atacaaccac aaaaacctta ccacatctaa gaaaattaat actgattcta 1980
tcttatgtaa tatctgttct ttattttaagt ttcccgaat atccccaaaa tatcttttat 2040
agctttcatt tttttccaaa ccaggcaagg ttatatacatt cattgcatgc ggttatgtct 2100
ctttcatctc tttcaatcta gaatagcccc ccccatcatc ttttctctctg ttggacagtt 2160
atactaatat gcagagatga tgtcatattt ttactacag aaaaagcact cataaatatg 2220
tataaatgta tatcgatcat aatgcttgag aaggaatggg cattggaccc atacctctgc 2280
actctggctt gaaggaagat gaaaagtctt tagatacaac agaggaaatg ataatataga 2340
gaagtccagg aggtacaaaag tctgtgtgac aaagatagaa agtagaggaa tgtgatacaa 2400
aggagaaaat aaaacctttg aatcttgtag ctatataata aatgttaaga ttcttcatac 2460
tgaggttgtg aagcaggaca atagtgaaga ggaatactga agaaattata ggagttttta 2520
aaatgattac aagatatatc ctatatagag agaattattac aatttctggt gaaaactatc 2580
aaatataagg ggaattttct cagaacgaaa aggtgaaaaga aaacacctca ttggcactat 2640
gtaaaagaaa tgggttgtaa ttatccacca ctgcacctgc cagccacgaa tggctgttta 2700
aacttcagtt aaactagtta aaattacata aaataaaaaa tctagtccct cagtcacact 2760
gaccacattt caagtgtca atagctatac atagctagtg gctccatatt agagtgtttt 2820
catcatcg                                     2828

```

&lt;210&gt; 95

&lt;211&gt; 1527

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 95

```

cgacctccgc gcgttgggag gtgtagcgcg gct.ctgaacg cgctgagggc cgttgagtgt 60
cgcaggcgccg gaggcgcgca gtgaggagca gaccaggca tcgcgcgcgc agaaggccgg 120
gcgtccccac actgaaggtc cggaaaggcg acttcggggg gctttggcac ctggcggagc 180
ctcccgagcg gtcggcacct gaacgcgagg cgctccattg cgcgtgcgcg ttgaggggct 240
tcccgacact gatcgcgaga ccccaacggc ttgtggcgct gcctgcgcgt ctccgctgag 300
ctggccatgg cgcagctgtg cgggctgagg cggagccggg cgtttctcgc cctgctggga 360
tcgctgtccc tctctggggg cctggcggcc gaccgagAAC gcagcatcca cgactttctg 420
cctggtgtcg aagggtggtg gcagatgccg ggccctccatg cctaggtggt ggtacaatgt 480
cactgacgga tcctgccagc tgtttgtgta tgggggctgt gacggaaaca gcaataatta 540
cctgaccaag gaggagtgcc tcaagaaatg tgccactgtc acagagaatg ccacgggtga 600
cctggccacc agcaggaatg cagcggattc ctctgtccca agtgctccca gaaggcagga 660
ttctgaagac cactccagcg atatgttcaa ctatgaagaa tactgcaccg ccaacgcagt 720
cactgggcct tgccgtgcat ccttcccacg ctggtacttt gacgtggaga ggaactcctg 780
caataacttc atctatggag gctgccgggg caataagaac agctaccgct ctgaggaggc 840
ctgcatgctc cgctgcttcc gccagcagga gaatcctccc ctgccccttg gctcaaagggt 900
ggtggttctg cgggggctgt tcgtgatggg gttgatocct tcctgggag cctccatggt 960
ctactgatc cgggtggcac ggaggaacca ggagcgtgcc ctgcccaccg tctggagctc 1020
cggagatgac aaggagcagc tgggtgaagaa cacatatgtc ctgtgaccgc cctgtcgcca 1080
agaggactgg ggaaggaggg ggagactatg ttgtagcttt ttttaaatag agggattgac 1140
tcggatttga gtgatcatta gggctgaggt ctgtttctct gggaggtagg acggctgctt 1200
cctggtctgg cagggatggg tttgctttgg aaatcctcta ggaggctcct cctcgcatgg 1260
cctgcagtct ggcagcagcc ccgagttgtt tcctcgctga tcgatttctt tcctccagggt 1320

```

```

agagttttct ttgcttatgt tgaattccat tgcctctttt ctcacacag aagtgatgtt 1380
ggaatcggtt cttttgtttg tctgatttat ggttttttta agtataaaca aaagtttttt 1440
attagcattc tgaaagaagg aaagtaaaat gtacaagttt aataaaaagg ggcttcccc 1500
tttagaataa atttcagcat gtgctttt 1527

```

&lt;210&gt; 96

&lt;211&gt; 1954

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 96

```

gggtgcacaa gagagggacg ccacctgtca gccaaaggc ctacagactt ctgcgcgcgt 60
tgccttgact tgtctctgat cttttcctga tcggacttcc tctgcagcag tgaaacctaa 120
tttgaaagt tcttagtcac aggaggcagt ctcgctacag tagtgggctt ttccttttct 180
attcacttct tcctttcatc cacttttatg agcggccatt atgttccttt cttgtttgat 240
ccttaattca ttggtccagt gttttaactt taaattcttc ctgtcaacca ctaagctaaa 300
tacagaggtt aaaaaatgtt tgctttttaa gtgctacttt atttttcttc agttgtgttg 360
ggaggaaaac attcctgagc attcatgatg cctgaggcac ttgacatatg cccttatgtc 420
taattttctc tgcaaccacg ggaaggacaa atcactctct tcagagagtc ctctcaaaat 480
gcgtattttc tattataata gtatatgtac ataatttata gtacatgtat ttgggatgta 540
tgccaaagtct tgtcttaata gtatggtagt atcagagcag tgtagagagg ccgggcatgg 600
tgggtcacgc ctgttatccc atcaccatgt gaggtgagg tgggaggatc gcttgagccc 660
attagttcaa aaccagcctg ggcaacatag ggagattttg tttctacaaa aaaacttaaa 720
aatgagccag ggggtgctggg ggtgcatgcc tgtggtccca gctactcagg aggtgaggt 780
ggaagatcg tttgagccc tgaggtcgag gctgcagtga gctgtcattg caccactgta 840
ctccagcctg ggcaacagag cgagaccctg tctcgaaaca aaaaaaac atgtagagcc 900
ccattctagg atagagtggg acttagggca tttctgggct ttcctgtcca tagggctgtt 960
aatgagagtc agtgagttga agtgcaaaa gaacttagaa tgaagcctgg catatagtaa 1020
acagtattcc aatattcatc ttagccactg ttgtgatttc ttaaggatca ttacttaatt 1080
cctcaccagt gaatttgaaa tgctcaaaac agacatgtaa taaaccatga tttttccttt 1140
tccatgaagg tatgagttgg ggaagtatg aaatagggca agagaaaaga tgcattgagg 1200
agtacatttc ataagactgt attcttctta taagtgggca gaaagcttta ctccaaagt 1260
tcctgatagc tagtggaag agagaaaaca catgtggaag gtggtgttta taaagacaaa 1320
aatgtccatt gcccataatg gtaccgggtc tggagacgca tacctccttg tggacccct 1380
agaggggaga agccaagggt gcagcaagcc ccttgctctt ttcacccttg tcttctctgt 1440
agctcaaaga gaaggttctg atgaattgtt tgtggcatat gtttggtatc tctggtcctt 1500
agttcctgaa caattctggg ctaatgctgt agtcagggtta cagttagctt tcttcttgat 1560
gttcatttaa gctataact tgatttggat cccaccaaac tactatagg gccctggacc 1620
gacactgatt ttatttttct tttgctgatt ctattttaag tgtccattca acatagagcc 1680
ttcagaaggc aaggggtaaa gttggatcct agcacttttg gaggccaggg tgggtggatt 1740
gcttgagctc aggagttcga gaccagtgtg ggcaacatgg cggcaccctg tctctacaaa 1800
aataaaaaaa attagcaggg tgtgtacct gtagtccag ctacttaggg ggctgagggtg 1860
ggaggatcgc ttgggccttg gaagtccag gctgcagtga gccgagatag caccactgca 1920
ctccagcctg ggcaaggag tgagaccctg tctc 1954

```

&lt;210&gt; 97

&lt;211&gt; 2378

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 97

```

tgagataaga tgcaaaaggc tctgtgtgga tgaggaaagc accttagagg agtgggaaag 60
gccaccaggg ttgggcccctg tttaggtaat tcctgttggc agcacctaga gagagcatct 120
gagctgaagg agtgggaaac tttgccaag caatggcacg ggcagcgggc tctttctggc 180
gccctgtgct ggagcagggc caagtcttag ggcacacaa acagcccatt tgatggaggg 240
agcagggaca tagcacattt ttgtctgtct ttgtgaggct gctttgctaa ctctctgagg 300
agaggaagcc tctcgggctt tccgtcggct ggggctagtg ccagagaatc ccttctcagt 360
ggcagcagg ttctggggag gccggcacia ggcaccgctc cccactcatg acaccttggt 420
gcagagtgc ctctgcccac gtcaccactc cggccagccc cagccaaaca ccaaaaggc 480
catggttgag gttgcatcta caccgttagt tggcaaggga tctgtgctga gctctgcgtg 540
gtggccaagg agtagcatgg aggagggccc tgatttttaa aaggaaaaat agagaggcct 600
caaaacaatg aaacaaagag cttgatatgt caagaggaga ccaaggccct gggaggcata 660
ggcaagccgg gcagagtcag accagtgcct tcccttgacc atctcctagc attccttaac 720
ctagacaggg gctaccccat gtgagtccaa gccagacttt gtggctgtcc ccagcctgca 780

```

```

cagcccaagc ccaggggaagt gtcctttctt tcccttcctt actaataatg ggccttcctg 840
agacacattc agagaaggat cagagagaaa ggagaacat ccaggagagc cacaagcgtc 900
caccaaaacag tgtctcaggc ctcacctgaa gctgctgttc ctcctatcag cacactagta 960
ttaaatgggt gttccataat gaggagaatg gaaataggta caaggcatct agcttaggac 1020
agaatcggat ttcggcatgt gaaggaatcc cagagctgat ctcatgaaa tgatctatcg 1080
tacagacaag gatatgcaaa tccacagaag tgaagggatt tttgctcaag atcacatagc 1140
tggtaaaacta aggtaaggtt agggcttgaa cttgggcctt ctgactcctt gtccagtcag 1200
tgttctttca tctcaccaca gctgcctcct ttgaaacaga ggtattaaga tctgtccttc 1260
tggttcacc cctcatacct ctttactgcc tctcccacat ccccacatg cctcccaaaa 1320
tgaagacaaa acaggattgt ttctgagacc aagatcagtc tgtctgtgat cagcctgtgt 1380
gtgggtcacc cagtcagca attaaagggc gatctgggct agtggaatag gatagctgat 1440
tgggtgttgt tactgtgaac cctagaccgt acccctgtag atgggtgtctc ttgctttgna 1500
acacatcggg ccttcagtgt gctgtattcc tcagaagtga gggcatctcg gtccattctg 1560
cccattggcca cagggtgcag agaggcagca gggcccatgc aagctgccac cctgggattt 1620
gctgggctgg agttcaacag atgtaaagac ttcagtgaag caataaacac aaaactctgg 1680
gagaagatat ccagaatttt gtacattact ctgtttcttt ttcaaaaatg aggcagatca 1740
gatgcccctg agctgcccct tttttcttga ttcccactg caatgtcctc agtcagtgtt 1800
gtccctctgc ccggctcccc agctctttgc caacctcttc acactccctc tgagctgagc 1860
atcagtcgcc tgtgacgtgg ccacctctct tctgtctccc actcccgacc catgctggac 1920
cccgaggagc ctctgcccc gccccacca cacaccata tccccacca ttccaatttg 1980
ttctttcccg tggggaattt tttttccag cgtctccatc ccttccctaca tatccacaca 2040
cacacaaatt ggtctgatct tttttccatt ggtaaacat ttaactccat gccagacctt 2100
gttttaaccc ctctcacatc atgttctttc cttttttgcy agttattttg cattaaccaa 2160
ctttgtcagt gacagatgcg tatctgaggg tgtcacacac gaccttcagc agggagagct 2220
tctgggccat ggagggccgt ctaatacatg gacttataaa ctgactgcat gagcaatgaa 2280
aaggccaaat tattctgaat tttttttgaa tcaactgaaa aaaactgatn tcttttgtat 2340
agagaacact aaacgtataa taaaagttgt tcaaaatg 2378

```

&lt;210&gt; 98

&lt;211&gt; 3335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 98

```

gtgatttatg gaccaggaaa cctgtcaacc aacaacaata ctctcagaga ccacttcaaa 60
gggatttctt cccatagcag aagctcactc atgcccctga gaaatgatgt ggataagaga 120
ggggagacga cctcagcatc cttgctaaat gctggattaa gccacactga ataccagata 180
gtcacagacc ctggggacgt cccagctttt ttgaaatggc tgtccttagc cagcttgctt 240
gtttatgttg ctgctttttc aattggtcta ggaccaatgc cctggctggg gctcagcgag 300
atctttcctg gtgggatcag aggacgagcc atggctttta cttctagcat gaactggggc 360
atcaatctcc tcatctcgct gacatttttg actgtaactg atcttatttg cctgccatgg 420
gtgtgcttta tatatacaat catgagtcta gcatccctgc tttttgttgt tatgtttata 480
cctgagacaa agggatgctc tttggaacaa atatcaatgg agctagcaaa agtgaactat 540
gtgaaaaaca acatttgttt tatgagtcac caccaagaag aattagtgc aaacagcct 600
caaaaaagaa aaccccagga gcagctcttg gagtgtaaac agctgtgtgg taggggcca 660
tccaggcagc tttctccaga gaccctaag gcctcaacac cttctgaacg tggatagtgc 720
cagaacactt agggaggtgt ctttggaaca atgcatagtt gcgactcctg tgcctctttt 780
tcagtgtcat ggaactggtt ttgaagagac actctgaaat gataaagaca gcctttaatc 840
ccctcctccc ccagaaggaa cctcaaaagg tagatgaggt acaaggctcct aagtgatctc 900
tttttctgag caggatatca ggttaaaaaa aaaaagttac tggctgggtt aatactttct 960
accttcttca cagagcagcc tttgaataga ctatgtccta gtgaagacat caacctccgc 1020
cttaagctat gtatgtatgg aggccagtcg cagctttatt atgcagacac acaagtgggc 1080
tggacatgag ggtacagttt ctgcctacca agacactact tgcactggat cttacgcaaa 1140
aaagaaccag aacacacagt gtggacaact gccatataat tctatctaga ttaggagagg 1200
gtcctggcta ggattttagt ggtaattcct agttacattc aacaagtata aagattatag 1260
agcttatttt atgaactata aactataatt taatgcaaaa tatcctttta tgaatttcat 1320
gttaatatgt tgaatatata aaataattcc acaagaaaaa aaaaaaaa aaaaagcgg 1380
ccgctttttt tttttttttt tttttttttt tggggcctcc caaagtttta tttttttatt 1440
ggggccctgc ttgtccaga aaacgttgaa ggtggcttcc caaagtctaa ctagggtatc 1500
cccttttagc ctaggaccct cctcccaca cctcaatcca ccaaaccatc cataatgac 1560
ccagataggc ccaccccaaa aagcctggac accttgagca cacagttag accaggacag 1620
actcatctct ataggcaaat agctgctggc aaactggcat tacctgggtt gtggggatgg 1680
gggggcaagt gtgtggcctc tcggcctggg tagcaagaag cattcagggg aggcctaggt 1740
tagtcgtgtt agttcttccc tgtctgagc agagacttcc agaagcacca gaaacggagc 1800

```



```

cagatgaaag gacccaaca cctccccccg ccaacctttg acagaatata ggggcatctt 1860
cagcctggac acgcatgcat ctccccctctc agacctctag cacttcttcc actcccatca 1920
agagccccct cactgtccct ctacactctc gccagtcccc cttagacacc ctctctctct 1980
ctgcccctctc tctgtgccc tctctctca gcccctgttg gttccaggct gagatgctc 2040
cccactgat taggccaata tctgggtctc tctcagcac tggggcctgg cctctgcccc 2100
ctccaggaca gggtcaggga tggggcctca ctgtgttttg gcctgggtac cccctccag 2160
tggggcacc tgcagcagag ggcagtgact gggggcccg agcagggttg ctgtgaaagc 2220
agcaataatg agtaggttc cagctgcagc caagaccagt gtggccactg tgccctgccag 2280
gcccaggcca ggttcctgtg tggccagcca ggtctctgct gatcccatat cagccagcac 2340
tgccctcagc tggaagtggg tgcccagcac tgcacagatg tggaataact ggtggctgtg 2400
gccgatgtaa tcaaagcgtc ctggtgccag cctttcaggc aggtgggagg cgaagaggaa 2460
gccagtgcag acgcgcgaga agagatggta gccatggctg gtgctcaggg cctcctgccc 2520
acagccgttg cccctgcccc agcacagccc gagccgataa aagagtggga ggttgtcgaa 2580
caggaatgga taggcgaagg ctctgtgctg gaggacctta ctgagccag ggctttccag 2640
ctccaggaaa cgggagtagc aggagaggcc ggtgcacagg aaggagttag gtgcggcggc 2700
aggcacaag aactggtgca ggtggccgtg cagccaggag gccggcatgg agtagggggc 2760
ataggggaag gcgcagccca gactgtagag gctgagcgcg ccgtagtcca ggaagtagca 2820
gatgtggcgc atgcccggcg acatggagct gaaggtgtgc gcgcagcac acgcgaagg 2880
gtagaggcag gcccggcagca ggaagaccag cagcggccag tggtagcggc ccgcacggaa 2940
gccggggcgc cccgccagcg ccaggagccg ccacaggaaag tacctgcggc gggcgctgc 3000
tcaggccgcc gcggaccccc gcgactgcgc ctgcagcccg tgggcctgga cgtccctgc 3060
ccgctgggt acccctctg agctcaaggc cgcggcctgg ggcggagcct cccctacca 3120
ggtgggcagg aagtgtgtcc agatgttgac cgtctcgttg gtcactctga aggagctgag 3180
gacacagtcc aaagccgagc tgggtggggc gnggtagcca gacatgatgc catctccca 3240
gaacaccag agcttgggtg gtgctcctaa gctggtgggt caacaggccc agggctccac 3300
ggcgggagtc caaggctgct gccagccctt agaaa 3335

```

&lt;210&gt; 99

&lt;211&gt; 1583

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 99

```

ttttttttaa gtgtctcttt taataatttt attagtatgg ccacaagttt gatgtctaca 60
gtacatgtta acatagctga gtacaaatat ttgaaataag tgtggcaagt tttaaaatgt 120
caactctgag ttatcatgca tgtcccatgc atttacatct gcatctgcaa actgtacaat 180
tcaatctgtg cttatctctca ctgggtctcc ctgtgtgcct cagctagggc agggcagggg 240
ctcttgtgcg ttttttcaga ccagatttt caagagcaac agtgttgaac tctggcatgc 300
catggtgcat ggtggcaaca ccgggtttag ctttggttca ggtaaaaatg caagtgaaca 360
actaatgca tttgtgtgag tcacctgatt cccaggggcc tgggctagca caaagggtat 420
tttgatatcc ctgtatgagg cccctggcag tttctgaacc cgtttcgtcc caccctgaa 480
agtctagaag tgaggttcgc agtcttctac catgctgtca gtgatatagc tggaaaccaag 540
atgggattcg tagtaactct tttcatcaaa ggtattaaca gtccaacca caacctggat 600
tccttttagt gaccacttct tcaagtaggc cggggataca aaatcctttt gcatgaggaa 660
agctgaaatt ccacacaggt accacaagat attatgcatg ctccaatcga gcaaaatgtc 720
catcataaca aatataaaat gtttccagaa agtatcatag cgtggtttcc catctcctgt 780
atggcttagg ctccaaggtc tgtgagttaa tgcgtgttatt acatcccgat ctgtttgtct 840
catctttag tagaattctg gcaagaaaga acagaccaca ctattattat acagttgagg 900
aaattccata tacattttct ttagagcctc agtagccttg tgtgcatggc ctttgacatc 960
aaagaagatt gtgaggttat ggtttaggca ctctgcaaca gcttccctta gggtagggat 1020
cttttcatca gggaaatcat tctgtagctc gtggtttgct gcaggattca gcttctaat 1080
ttgttcaaat gtcaaatcac acaatcgccc agtcccatca gtcgtcctat ctactgtgtt 1140
atcgtgcatt aagacaggaa tcccgtcaga agtaaaactca atgtccaact ccacgcctgt 1200
tgctccattc ttgctgcct gccgaatggc cgccagcgtg ttctcgggcg cgtcgtggct 1260
gccgccacgg tgggcgatgg cagaaatgcg gtcccggggc ttgagcacct gcagggccct 1320
gcaagagggc accggtcaa agctgaagac gcgcagtaga acgaagaggc tgccggtagg 1380
gaggcaggca ttgaccgggt ccgcgtcacc agcagcagca ctagcagcag gaaggagaaa 1440
gggcccagga ggcgcacctg gtccctccac agccacatgc cggcgccgc accggcacgg 1500
acgggagtc cggaccgcc gggctcctgg ggcagtagaa cgagaagcga gggggagggt 1560
ccaaggcacc ggcagcagcg aaa 1583

```

&lt;210&gt; 100

&lt;211&gt; 2561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 100

```

gatccttttaa accttgatgc catacaacac atgtttttgt gagctcaaat ttggggcaaa 60
gtcaciaaatt aacagcatct cagccaacca attgttcaag gtacagggtca aaatggaatt 120
tcttatgtct tccctttcta cacagacaca gtaacagtct gatctctctt tcttttccct 180
acaggattgc aggcatgcag caccatgcct ggctaatttt gtatttttag tagagacggg 240
atttctccat gttggccagg ctggtctcaa actcctgacc tcagggtgatc tgcccacctt 300
ggcctcccaa aatgctggga ttacaggcat gaaccaccgc gcccgcccat gctaagtcct 360
ttcttggtct catttggtg tccctcctgc ttctctcca ggtccatctg ccacagtgtc 420
acgtgcacca gcgtgccagc aacagtgggt ggtctctgcc ccgtgcctcc tccactgggc 480
tcacacctgt cttattttgt cctttggtgg ctctgagaag cagcctctgc ccctctccct 540
ttcccttact ctttgtaaga tccctctcct tctgccctac catgttgctt ggacaccagg 600
gtggaatagc agagaacggc tgcttggtgt tgaattccag ctctgccact tcgatagatt 660
tctgaactga gacatgtgac tctctaggcc tatttctgca tgggtcggag agtgggaggg 720
actgctttac tgagttatag tgaatgtagt tttaacctaa gcgcctcaca tgactaaact 780
ctcatccatc aagaatgagc tcagctctca cttccccact cctcaccccc ctgtaaagta 840
acctttctcc aaggttatgc ttcaacagga atagctaaca tttattaaat tgtggcagct 900
aagtatcttg gatatttggt ctcatgaat cctcacacct actattttac agagatgcca 960
gtggggcttg agattgaatc acttgccag gctccactg ctggtaaaca gtagaggggg 1020
ctcctgaccc atcagtctgg cttgacaacc cattccctca actgcggatc ccggattccc 1080
ttatcacctt gttgatttct ccatagctgt ggtaacattt gttgcatgaa tggaccgttg 1140
aaatagggcc tggcaggagg aaattcagga aatgaatgaa tggttcttcc ctggcagcct 1200
tgatgactta caagccctca aggggaagca tttctctctg gactccttga tgccggagct 1260
gctggtgttt cccgcccaga cagatctgca tgaacacca ctgtaccggg ccggacacct 1320
cattctgcag gacaggggca gctgtctccc agcatgctg ctggaccccc gccaggctcc 1380
catgtcatcg atgcctgtgc cccccaggc aataagacca gtcaacttggc tgctctctctg 1440
aagaaccaag ggaagatctt tgcccttgac ctggatgcca agcgggtggc atccatggcc 1500
acgtgctggc cctgggttgg cgtctcctgc tgtgagctgg ctgaggagga cttctggcgg 1560
tctccccctt agatccgcgc tatcgtgagg tccactatgt cctgctggat ccttctctgca 1620
gtggctcggg tgagatgggt agaaggcgtg gctgaggggac tcggagggtcc acagcagctt 1680
agacctggag tcatctgttt tggctctagt tctgacactt taatgggctt gggaccctgg 1740
agcaaagtcc tctctgtga ggcaaggatt tcaggagcga ggatttcagg actgaggcag 1800
cctgtgaagc tgtgtaaccg agacacgctt ttcttaggt atgccgagca gacagctgga 1860
ggatcccggg gcagggacac ctagcccggt gcgtctgcat gccctggcag ggttccagca 1920
gcgagccctg tgccacgcgc tcactttccc ttccctgcag cggctcgtct actccatgtg 1980
ctccctctgc caggaggaga atgaagacat ggtaccagat gcgctgcagc agaaccgggg 2040
cgccttcagg cttagctccc cctgcctgc ccggcccccac cgaggcctga gcacgttccc 2100
gggtgcccag cactgctccc gggcttcccc caagaccagc cttagcgggtg gcttctctgt 2160
tgctgtaatt gaacgggtcg agatgccgag gtgagtgagt gggggcatgc ttgggaggcg 2220
caggatggta ctggcacatc taacatctac acttctctag ctcagcctca caggccaaag 2280
catcagcacc agaacgcaca cccagcccag ccccaaagag aaagaagagc acagcaaaga 2340
gccgcagccg gtgcttgac accgccttgc acatagcaga ggctccaggc tgactccttc 2400
ctggtgggaa aggaagatgc ctgtcctctc cgtggaggag cctggggcct caccgcaggc 2460
agcagtttgc attttgaaag gttattgggt cccttctctg ggctgtgttc ttgctggtga 2520
gcaaaagtgt tgctgcaga aataaatgc agaactgact c 2561

```

&lt;210&gt; 101

&lt;211&gt; 2041

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 101

```

gccacacaca accccaattt ttgttttaaaa tttgcatcca cattaacaaa acttttatta 60
gaaaaattca tttaatatct aggcaaaatt atatcacttt caaaactttt taagtaaatt 120
cagtaacata tcaattcagt ttattagcat caaatttgat gaaacagtgc ataatggaa 180
acaaaacagt ttatcaatac aatataatcat tcttcagaat ttgcttaatt tttgcagcca 240
attaatacaa tttaaaattt tgtgcatatt gtctcaattg aaaaatgtga gtgaatctgt 300
tttaattgta ataagaaatg tttctaattg aaataaattc ttttaactgt ctagccagag 360
gtcacaaagt tttccaattt agagagcttc aaaattagct tgttcataag cagcgtgaaa 420
ataggagaaa aatgtgaatc acagtgtac tttttgtctt tgattgaata tttggtaagc 480
atttcttttg tttcaaggaa atcttgaatt ggattttcta gtacaggaaa tctttataaa 540
attcttttgt aagtcattca ggtaacattg gtaaagaaac aagatcatta gataattgt 600
cttttttttt cagaagtttc ataaactgtc aacattctat agcttttgtg catatgtact 660

```

```

gaagaattat aacacatgta tccgtgactc gtttcttggga gtctgcttca gaaaattgaa 720
cacaaatatt ttcagtatgt atcatgcaat agaatagagc aatgagggaa aagttatcct 780
cttgctttaa aattccaaca tggatggctc tttgacttaa cttagctgga gttccatcct 840
tgtgatagaa actaaacttt ctgtctctaa ctgaaattct ttgacagatg gaagattgtc 900
aaaaatatct gccatgagtt tgagccttta ggcaatgaat tcacatttca ttgcctttac 960
atgaatcgac attgtaaatt tggaggttct ttgagacaga atatacccag agttttcttt 1020
gggcagtgct ttgtatcaaa cagttcatct aaggctaaag aaaaataact gaaatttttc 1080
aagatttgaa ttaattgggtc tttattatta aaatataaat attctattag caaaaatata 1140
ttctgttcat gtatatccaa gagcaaaatt gtttaatggg ttcatgtacg ttttcagttt 1200
tcatgaatgt cttttaaggt cttttcctca taattttcta aatacgataa agtgataatt 1260
tcttcatctc tccatctaag gttctttgta gatgcatgtg taagaagcta ttttatagct 1320
tgccaggttt acaaaactcag acccttttaa aagttgttta aattgttttg ttagaaattt 1380
cactcgaggt toatatgagt aattttgtgt attctttttt gacttacact cactaaatgg 1440
ttgctaaaaa ttacatgtct taaatattgt cttaagtatt atctactatg tatctttaac 1500
acttttgaat agaacaaaca gcttttccat tttgctctgc tgcagtaaat tgcaattgcc 1560
attcatcatt aaatgtgcac tatactgtct ctagtcttct tgactatgcc agttgtagta 1620
ccagcttctg tatctgcact gaattctgcc tcagtaatat gcctttgttt aaaatttaaa 1680
tattttttca tttttttaac ctagaaaata attataatga aaatattaag tatctcattt 1740
tgggattctg atttaccatg gtatcactgt aacttgtgct gtttgcatag gtatactcta 1800
tcttgtgcta tctgcataaa ttatccaagt aaacacattg tgattttaca tccgtgcata 1860
gaaaaaaaaa tcacttgaac tcaaatcaat ctgttgatac tgactagatt ggtgacgtgt 1920
ttatgtgtaa cactagtgat aatgcacgtt cctgtacaag cattataata caacagtgct 1980
ctatgcaatg cagtgggtta agtnnaattg tagttctatc aaaataaaga tacgttttagc 2040
g 2041

```

&lt;210&gt; 102

&lt;211&gt; 2135

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 102

```

gtgtggactg ttataagaac tactcagtggt tttgttctcg ggcaaggaag gtaggagttc 60
tgtgcactta aggccagtggt tcacaaaccc ttgttttatt taagagacag aggagaaagt 120
ggagcgggga gggaaatccta gcttattttc ccttttctat gaggacttga cacagggtct 180
gctgagttgt cactgctgct ccagactcac cttagagatgc tgctccact ttccatcctg 240
tctgggtctg aaaacagtggt gtctgcagat agtgccaca aaccccatgt gactgggttg 300
aaggaccagc agcataaagg tctctcagga aaccatgtcc aaaaccctag cagcgggtaca 360
gcatgctgtc tccaaccctt atccccaggt ttaagggtgg tttatggcca tacgtggagg 420
ttttttgttg ttgtttttga gactgagttt cactcttgtt gccaggctg gagtgcaatg 480
gcaccatctc ggctcactgc aacctccacc tctgtgttca agcgattctc aggcctcagc 540
ttccaagta gttgggatta caggcgctg ccaccacacc tggctaattt tgtattttta 600
gtagagatgg ggtttctcca tgttggctag gctggcttca aactcccgac ctcaagtgat 660
ctgcccgcct tggcctccca aagtgtctgg attacaggcg tgagccaccg caccggcag 720
agtttcataa tgaaaaatta actaatattc tagtatgaag tgaggaggat actgaacagg 780
atgtggctaa agccaacctg ggacagccat ggcgtggctt ggtttcttca ctccagtgt 840
gtccctacca tttcgacga ttgatttagg aggcctctggg acaaaagaga agccaaagag 900
cagttttccc agttcactca ctctggcaaa atcaggaaaa aaaagtctgt tttgacatca 960
aattccacta atttggggca gcgttgggtg aggaaagtat tgtgaagaca ggcttcttgg 1020
agtaggggca gccacaattc agtagacact ctaggctcgg aggcgtgccac tgtagtgtcc 1080
aagctcaggt tgggtgggtc tgtgctgtat ggatggaata ggacctgggc tgggtcatctt 1140
catgtcgttt cctctctgta tcaatggaag ttcaaccgcg cctacctct tcagatagtt 1200
gtaggccact tttctcttgt aactttggaa aacaaaagag gagaaataag tatcatacca 1260
tatgcgtgtc tccaaagtgg atgtggttgc ctcaaggcag gtggcaggca ggggtgacct 1320
gctggccctc agatcaatgg tctgtggcagg tctaagagct tgtccattg gccagatttc 1380
tttcagcag caaagccagc ttgggggttg catgttgatc ctgagcaagc ttaacggggt 1440
gaagctgggc tttctcccc ctgtgactgg agtgcatgtt gacaccagca ctttttctgc 1500
acatgtatct tcaatccaac aaggccgttt ttttaatgct gagtaacagg ccaccaagcg 1560
gctactcgtt tatatcttct cagcaaccgg ccgcagtctc ttctgcacca ttttctacac 1620
cagactgtct tggcaccaca gggagctctt ttctgtccct gcacaatgac attccaacca 1680
ccaccagcca gacattacag ccaaccttgc tgattgtcac aagcaggacc ttggggccac 1740
tggcactgtc agatagtaag ccatttcttg ggtagaggag gaaactctc tccacaaatc 1800
cacttgggct tgtgcaaatg gcacttgaag gagtcccat gcacttggag tccatgagcc 1860
aatgggatat gcaaagacgc ttaaactatt cagggtcgtt ttctctgttc atatccaatt 1920
ctggtgctta ggaacaggga cccatgctga tgcccaaggg caaaaagccc cacttctctt 1980

```

aaggaagtga acaggcctga cctgatgcc caataacggg caaccctagg ctttttgttt 2040  
 ttcttgcttt tattcctttt tgtgttggtg cttgtgctgc gtttgtttac aaaagatgtn 2100  
 ttttgtttta ccaaataatta aaaatggaaa actcc 2135

<210> 103

<211> 1969

<212> DNA

<213> Homo sapiens

<400> 103

cagagagatg aggaaactga gaccagaaa ggtggaagca cttgtctaag gtcacgcctc 60  
 caggaagcag tgtgtccacg actccagtc aagtggctcag gctccagagc ccacagtcoc 120  
 aggggtccat gatgccgagc tgcaatcggt cctgcagctg cagccgcggc cccagcgtgg 180  
 aggatggcaa gtggtatggg gtccgctcct acctgcacct cttctatgag gactgtgcag 240  
 gcactgctct cagcgacgac cctgagggac ctccggctct gtgccccgcg cggccctggc 300  
 cctcactgtg ttggaagatc agcctgtcct cggggaccct gcttctgctg ctgggtgtgg 360  
 cggctctgac cactggctat gcagtgcctc ccaagctgga gggcatcggg gaggggtgagt 420  
 tcttggtgtt ggatcagcgg gcagccgact acaaccaggc cctgggcacc tgtcgcctgg 480  
 caggcacagc gctctgtgtg gcagctggag ttctgctcgc catctgcctc ttctgggcca 540  
 tgataggctg gctgagccag gacaccaagg cagagccctt ggaccccgaa gccgacagcc 600  
 acgtggaggt cttcggggat gagccagagc agcagttgtc acccattttc cgcaatgcc 660  
 gtggccagtc atgggtctcg ccaccgcgca gcccctttgg gcaatcttct gtgcagacta 720  
 tcagcccaa gagggactcc tgagctgccc acatggccta agatgtgggt cctggatcct 780  
 tcccccttc tcaccataac cccctctcag tgtttcccca acttctccct tttagcaggg 840  
 tccctttaga gcccaactcc aggtcaaactc tggagctcaa atcccagtc tccctccca 900  
 ggagtggggc cccaactctt ccaagatacc agcattcctc aagtcctccc aaaacttct 960  
 acccacaccc tcttcccaag gccctcaggg gcagaaaaca tctccttcaa cccgtccca 1020  
 ctccctctc tgcatgacct tgggcaaac cttgcccttt caagccatca gctcctgct 1080  
 cctgcccag agggctttgg atcagattcc tcttctcgcc aggatgagga cagcactgc 1140  
 cctccataga cacagatgaa ggggtggggg tcattcagct cgaatgggtc ccagatgctc 1200  
 acttggcctt tccctgcagg atgagtgaag acgtttgcct ctcacagtgt gtcttctacc 1260  
 tgcattttgg catcagagcc cccagccca cccaccacag gcaattacta gccctagttg 1320  
 ataggtgagg tgggtgaaga aggtggagg tgacatgtcc gaggtcacac aacaaagcag 1380  
 catgcaggaa ctgaaacac atcttcagcc tctcctggg ccagctcttg tgctacaggt 1440  
 ggggcccagc cagccctca ccttctggt tccctgaggg tccctcaggg ggaggacagg 1500  
 tttggcccag aaagactagc cagaggcctg atggtcccag gtggctctgg atatactttg 1560  
 gatattgatt taaatggtct ctaagagccg ggggtagggg gcaggaaaag tgggttgtct 1620  
 ttgcccctca aagtcacact acctagaaac caagcccag gtcttggccg tgaccctgat 1680  
 aataaatgtg ctctctcaga ggccagacc cctccctccc cagccggagg cgtcatctct 1740  
 cttctgtacc actagaggga gctctgatgc agctggagag cagcgtccta ggctctcgcc 1800  
 cctccctcc ctaaccctta ccttcagct ccaccagcct gaaggccctc ctaggggatc 1860  
 ctcaggcggc cccaccagg gcacacccta ctgtccttgt gcctcacgcc cctcctcat 1920  
 cctgcacccc ttccatccca ccttcccttt caataaacag ctgggatgg 1969

<210> 104

<211> 2203

<212> DNA

<213> Homo sapiens

<400> 104

tgcattctac tgaggacacc tgaccttttg aagcttcata attcacatct agatgtcacc 60  
 ggtctttccc atgttaacag ttctgacat gttttattat atatgccttc ggcgcgagc 120  
 caggacagct acaagaggag aaatgatgaa caccataga gctatagaat caaacagcca 180  
 gacttcccct ctcaatgcag aggtagtcca gtatgccaaa gaagttagtg atttcagttc 240  
 ccattatgga agtgagaata gtatgtccta tactatgtgg aatttggctg gtgtacaaa 300  
 tgtattccca agttctgggt actttactca gacagctgtg ttctgaactt atgggacatg 360  
 gtgggctcag tgtcctagtg cttccttgcc attcaagagg acgccacctt attttcagag 420  
 ccaggactat gtggaactta cttttgaaca acaggtgtat cctacagctg tacatgttct 480  
 agaaacctat catcccggag cagtcattag aattctcgct tgttttgcaa atccttatc 540  
 cccaaatcca ccagctgaag taagatggga gattcttttg tcagagagac ctacgaagg 600  
 gaatgcttcc caagctcgcc agtttaaac ttgtattaag cagataaatt tccccacaaa 660  
 tcttatacga ctggaagtaa atagttctct ctggaatat tacactgaat tagatgcagt 720  
 tgtgtacat ggtgtgaagg acaagccagt gctttctctc aagacttcac ttattgacat 780  
 gaatgatata gaagatgatg cctatgcaga aaaggatgg tgtggaatgg acagtcttaa 840

```

caaaaagtgt agcagtgtctg tcctcgggga agggccaaat aatgggtatt ttgataaact 900
accttatgag cttattcagc tgattctgaa tcattcttaca ctaccagacc tgtgtagatt 960
agcacagact tgcaaaactac tgagccagca ttgctgtgat cctctgcaat acatccacct 1020
caatctgcaa ccatactggg caaaactaga tgacacttct ctggaatttc tacagtctcg 1080
ctgcactctt gtccagtggc ttaatttatc ttggactggc aatagaggct tcatctctgt 1140
tgcaggattt agcaggtttc tgaaggtttg tggatccgaa ttagtacgcc ttgaattgtc 1200
ttgcagccac tttcttaatg aaacttgctt agaagttatt tctgagatgt gtccaaatct 1260
acaggcctta aatctctcct cctgtgataa gctaccacct caagctttca accacattgc 1320
caagttatgc agccttaaac gacttggtct ctatcgaaac aaagtagagc aaacagcact 1380
gtcagcatt ttgaactctt gttcagagct tcagcacctc agtttaggca gttgtgtcat 1440
gattgaagac tatgatgtga tagctagcat gataggagcc aagtgtaaaa aactccggac 1500
cctggatctg tggagatgta agaattattc tgagaatgga atagcagaac tggcttctgg 1560
gtgtocacta ctggaggagc ttgacctggg ctgggtgcca actctgcaga gcagcaccgg 1620
gtgcttcacc agactggcac accagctccc aaacttgcaa aaactcttct ttacagctaa 1680
tagatctgtg tgtgacacag acattgatga attggcatgt aattgtacca ggttacagca 1740
gctggacata ttaggaacaa gaatggtaag tccggcatcc ttaagaaaac tcttggaaac 1800
ttgtaaagat ctttctttac ttgatgtgtc cttctgttcg cagattgata acagagctgt 1860
gctagaactg aatgcaagct ttccaaaagt gttcataaaa aagagcttta ctacgtgact 1920
taatatatgt tctgtattaa aattaatgtg ctttgttggg gtttaatttt gggattgggt 1980
ttgggttttg tttttagtgt ttttaatggt aagaattaag acattttagt attttaaaga 2040
aaaaatgaa attgtccatt aaatcaagta aaaatgtgca caaatgtttt cataaaatac 2100
tgcaagcact tctcttcaag aatatgagtg gatattattt ttaccttatg ttaatcagtg 2160
atatgcttta gtcaataata tgattgataa aagaataaca tgg 2203

```

&lt;210&gt; 105

&lt;211&gt; 2090

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 105

```

gaggatgcag ccgtggacgc cgcggcaaaag ccctcagggg ctcccctctt agcaggaagg 60
caggcaatga acgcaggaac aaatcaccga gcatcaggtg ctgggtggcc gtgacacgag 120
ctgtgaagaa aaggaagtgc aaggagatcg gacgcccccc agcgtccacg cggagcatga 180
acattgagga tggcgcggtg cgcgggctcc ccgtgcccc cgtgcccgc cggtaggatg 240
tcctggcccc acggggcatt gctcttcttc tggctcttct cccaccctt gggggccggt 300
ggaggtggag tggccgtgac gtctgcccgc ggagggggct ccccgccggc cacctcctgc 360
cccgtggcct gctcctgcag caaccaagcc aaccgggtga tctgcacacg gagagacctg 420
gccgaggtcc cagccagcat cccggtcaac acgcggtacc tgaacctgca agagaacggc 480
atccaggtga tccggacgga caggttcaag cacctgcggc acctggagat tctgcagctg 540
agcaagaacc tggcgcgcaa gatcgaggtg ggcgccttca acgggctgcc cagcctcaac 600
acgctggagc tttttgacaa ccggtgacc acggtgcccc cgcaggcctt cgagtacctg 660
tccaagctgc gggagctctg gctgcggaac aaccccatcg agagcatccc ctccctacgc 720
ttcaaccgcg tgcctctgct gcggcgccct gacctgggct agctcaagcg gctggaatac 780
atctcggagg cggccttcga ggggctggtc aacctgcgct acctcaacct gggcatgtgc 840
aacctcaagg acatcccca cctgacggcc ctggtgcgcc tggaggagct ggagctgtcg 900
ggcaaccggc tggacctgat ccgcccgggc tccttcagg gtctcaccag cctgcgcaag 960
ctgtggctca tgcacgcccc ggtagccacc atcgagcgca acgccttca cgacctcaag 1020
tcgctggagg agctcaacct gtcccacaac aacctgatgt cgctgcccc cgacctctt 1080
acgcccctgc accgcctcga gcgcgtgcac ctcaaccaca accctggca ttgcaactgc 1140
gacgtgctct ggctgagctg gtggtcgaag gagacggtgc ccagcaacac gacgtgctgc 1200
gcccgtgtgc atgcgccgc cggcctcaag gggcgctaca ttggggagct ggaccagtgc 1260
catttcacct gctatgcgcc cgtcatcgtg gagcgcccc cggacctcaa cgtcaccgag 1320
ggcatggctg ccgagctcaa atgcgcacg ggcacctcca tgacctcgt caactggctg 1380
acgccccacg gcacctcat gaccacggc tcctaccgct tgcgcatctc cgtcctgcat 1440
gacggcacgc ttaactcac caacgtcacc gtgcaggaca cgggcccagta cacgtgcatg 1500
gtgacgaact cagccggcaa caccacggcc tcggccacgc tcaacgtctc ggccgtggac 1560
cccgtggcgg cggggggcac cggcagcgcc gggggcgccc ctgggggagc tgggtggtgt 1620
ggagggggca gtggcggtc cacctacttc accacggtga ccgtggagac cctggagacg 1680
cagcccggag aggaggccct gcagccgagg gggacggaga aggaaccgac agggcccacg 1740
acagacggtg tctgggggtg gggccggcct ggggacggcg ccggccctgc ctgctcttct 1800
accacggcac ccgccccgcg ctctcgcg cccacggaga agcggttcac ggtgcccac 1860
acggtgtgta cggagaacgc cctcaaggac ctggacgacg tcatgaagac caccaaaatc 1920
atcatcggtc gcttcgtggc catcacgttc atggccgagg tgatgctcgt ggccttctac 1980
aactgcgcaa gcagcaccag ctccacaagc accacgggac cagcgccacc gtggagatca 2040

```

tcaacgtgga ggacgagctg cccgcccgt cggccgtgtc' cgtggccgcc

2090

<210> 106

<211> 1786

<212> DNA

<213> Homo sapiens

<400> 106

```

ccgctttttt tttttttttt tttttttttt ttttgggacg gagtcttgct cttgtcgctc 60
aggctggaga gcagtgggtg ggtctcggtc cactgcaacc tttgcctccc ggggttcaagc 120
gattctcttg cctcagcctc ctgagtggtt gggattacag gggcgcgcca ctatgccagg 180
ctaatttttg tatttttgtt agagatgggg gttttaccat ggtggtcagg ctggtctcga 240
gcgtctgacc tctggtatcta cctgcctcgg cctcccaaag tgcctgggatt acaggcatga 300
gccacctagc cccactttaa gtcttaaaaa ggtacaagaa ctgtgggggtt attatggctg 360
gcactgctct gattggtcag tgccactcct gtttgggtgc ccctgctgtt cactgtaaat 420
gtcttactta gtatcgtct tctaactcag cgcgagctt gttgccccgc caagtccgtg 480
ctgcatcttt ccctgggagg ctgacatttc tggatcaagg ataccctaag tcttacagct 540
tgctgttggg tttgatcact gaagggcacc agcaggggac tgaaaatcag agaggagggtg 600
tcggggtaag taaattagtc ccctgcctgc cttttgcaac agccagttag tagctatggt 660
cctccacagg agctgcagct cccaccagcc acagccacag ccctctccgt gattccagga 720
gccactgggtc cactgtatcc ttctgcccgt gcggtggtaa gagccccagc caaggacaga 780
atgcacctac gcctttttaa gtagacccta aatccatctc ttctaccag gacatgacta 840
ttccaagcac ttaaaaaaaa gtggaggtgg aaagcagaat gttataggta gtacattagt 900
aaaataacaa taaacagtga caacatcaac acagacttct ttcttgttct attcagggtg 960
atatgtagaa acagctaaag cagaccacct gccttctctt ccttttctct ccctgcctct 1020
tttcttcctt ttcttttact ccctcttttt tcttctctcc tccatctcat tctctctcct 1080
ctccttcctt cttttccccc ttattctctc cctctctctc tccctccatc cttcagcccc 1140
agtagggcct attctgtacc agggcctgtg ctaggcactg aggaagcaga ggtgagttag 1200
gcagtctttg ccttcaaaga gatcactgcc taggacttag ccatcacagt agtgcaaagt 1260
agactggact gaacagaagc tcctgagctc gcaaagctag gtcatatccc tgtctgtcac 1320
tcactagctg ggtgaccttg ggcataatcag tctaacttac ccaatactgt ccccatatct 1380
gtaagagagg aacacttctt acccacctca cagagtctt actgcgttca acaagataat 1440
atatgcaagg cactaatacc agcccaacat atagtaagga ctgagaaaca gtgggagtta 1500
gctcccttct tcagtggagg gaaagaatga caatatcact tagtggtgaa gagtgttaag 1560
attgtaagag gagctactta acctctgggt ttaaatgggg ttaatatata ctaccttcga 1620
tcctatctat attttccag gagtggtatg acagtcatat gtgataacgt gtgtaaggct 1680
ttagattata aaaatgataa aagtatcaac caaataccat cacttattat tacataatgt 1740
tgatttatat ttaaaaaagc ttttcagttg tttccttcaa tcactg 1786

```

<210> 107

<211> 3172

<212> DNA

<213> Homo sapiens

<400> 107

```

gctgaaggac tgtccccgac gccgggcccgt catcctgaaa ttcagccttc aggggtctcaa 60
gatctacagc ggggaggggtg aggtgctgct gatggctcat gccctgaggc gcatactcta 120
ctccacctgg tgccctgcgg actgccagtt tgccctcatg gctcgaaacc cacggagccc 180
agccagcaag ctcttctgcc acctctttgt gggcagccag ccaggagagg tccagatcct 240
gcacctgctg ctgtgccgct ctttccagct ggcttacctc ttgcagcacc ctgaggagcg 300
ggcacagcca gagccctgcc cagggcccac aggggagggtg ccctgaagc cactgtccag 360
ctctgggggc ctgggtgcggg agcccttcgg ccgtgatcaa ctctctcaga acgtccatgc 420
cctgggtctc tttcggcggc tgccagcaga ggggctgggt ggcagtggga aggagctgcc 480
agagtccgaa ggcggtgccc cccatgcccg cctggggaat ccctactgct cgcccagctg 540
gggtgcgcaag aaggccattc gcagcaagggt gatccgctcg ggggcctacc gcggtgcac 600
ctatgagacc cagctgcagc tgtcggctcg ggaggccttt cctgccgcat gggaggcatg 660
gccccggggt cctggtggcc actcgtgcct ggtggagagc gagggcagcc tgacggagaa 720
catctggggc ttcgctggca tctccaggcc ctgtgccctg gccctgttgc ggagagacgt 780
gctggggggc ttctgctgtt ggccctgagct ggtgcttagc ggccagtggt gtctgtccgt 840
gcgcacgcag tgccgctggg tgccccacca ggtcttccgg aaccacctgg gccgctactg 900
cttggagcac ctgcccgcag agttccccag ctgggaggct ctggtggaga accacgcgtg 960
tactgaacgt atcctcttct gtccccctga catgggcccgc ctgaacccca cctacgagga 1020
gcaggactgt gggcccccag gcaggccgcc ccggactctc cgccccctca gccatgccaa 1080
gtccgaggca gagctgcagg gcctgggcta agaggtaggg ccccggtccc acaggccccg 1140

```

```

cctcaccocg gctcctgggc cccagcagca tctctgcccg tcctgcaccc ctctgggtgc 1200
cagttccatc cagtcaccct gcccttggag cagtcttcca tcgcgtcact gtccgtggga 1260
ggggagccct gaggttgggt atcgccaatg gcttcttggg gaacatgtgg cctgctgaga 1320
ttccaggagg gcaggtggag ttgcaggctt cggataaccc tttgggtggc ttcggatgac 1380
ctgctgtgtg gcttcggatg ctttgggact tctgggcttc tgctttactc ctggggcagg 1440
agcttggtca cggcaaaagc gcagccctct cctaaggagg ctaggccttg gggcgctgac 1500
tgggagtctc cagaaagagg gttttgggga ggcaggagtg agcttttact ctggggcaaag 1560
acctggagtg agccaccctg tctatgagag cagagatgac tccatggagc ttgtgggcag 1620
gaggttgggg atgagcccca tctaggctga cagagcaggg ctgtttctca catgtatctg 1680
agagtgaagg aggggtggga aggtgcagag agggcaggag ggacagaggg ctgtacctaa 1740
cgctcacgca cgggtggactc ctgtgtgcag aaagggatgc gcaccagcag acaggggcaa 1800
gaatctccat gctgtctcca ctcaaaacct cagggtgtg actcccgctt tctcagaagg 1860
gatgcgcagg ctcaccctct ccccttagga atcaccaggg cacccccacc cccagctcat 1920
ctccttttag catttgacag ggaggggcca gcagtgagct gcaggcttag aggggtgacc 1980
agggcccttc ctaactcgac cgcagtgtgt ttggtggctg ccttgggagg gaggtgtcc 2040
gatgctgaca ttcctcttag catggccctg accgtggctg tcaggggcca ccttgccctc 2100
ccaggccagc cccactggga atggggtcag tcacagcaga accgtcgaaa ggtggacctg 2160
atgtggggcc tgccgggggc gcttggcctc agcggggccat gggagaccca gggaaacgac 2220
tctagtgtga ggcagtggtc ctgccagtga ctgacaaacc ctctttgtaa gcaaaactga 2280
caaataatga atctactgaa ctcagttata gaacaagttc attttgcatg aacttctctt 2340
attgaagcag aagccacgtc atgagcctgg gggctgccct ctcccgtctt gggagtggga 2400
cagaactggt cagtgccttg aaagtacag atttctgact cctggaagga actgggcagt 2460
cccaccagag cagaaagaaa ggaggcaaac ttggggagtg agaagccagc ctcccagagg 2520
cccaggcctc gtgttcccca cctccaaccc tcccgtagag agaggggctt ggccctgggac 2580
cttgtaacct ccttgcaagt taagtgagct atcctgtcac aaaagataga aggaactgcc 2640
ctttgggact tcttttcaact ggaaacccag cactggtttt atgttgagtg agtgggaagc 2700
tgggactctg ttttacagcc atctgtactg gagcctggac aaaccactgg tctctatggg 2760
aggccccagc ctcacatttc cctggcaagg agagagaggt ttagccatgt cctgggtcta 2820
ggattatagc ccagagatgg gcacttaaga agacctggtc attggtccag acttgtgcca 2880
aggctctctt ctgtgaggga tgggttttac tgggtgaatta cctgtgtgga gaagctatca 2940
gggctcatgt ttagcacact gaagggacca gtctccacca agcactttaa catccctcca 3000
gccagcatag attgatctcg tgttacagag agggcaaggc ttttggcccc tgtttgcaga 3060
ctccatgtct taatcagaga ccacagtttt ctctttgttc caatctgcgc cacctcgggc 3120
gccccacttt ccttgctgtg tggacttgaa acaaaataaa atgtgttgc t 3172

```

&lt;210&gt; 108

&lt;211&gt; 2538

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 108

```

gggaaagcgt ttatactctc tccttccagt tctaactcct aggcctcaag ttgctccttt 60
gggagaaaaa aattgtaatg cttaggattt tactatttag tttgggtggga acttcattac 120
ctttttcttt ggactttctt cttatttttt taaaaaaatt cttttgtgtg gacgaaagag 180
gcttggatat tacttctca ggtcaaagac ttaaatacta cttctgggtc tacatttccg 240
tgattgtaca ttttttcccc actaatcacc tatgacactt ctgatttttag tttgcagaca 300
aattttcatt ccacttaaaa ggcgaaaaac ttgaacaacc aatgaattta atcccttttg 360
tggaaactgc aatgggtttg ctcaatttta aggtaaggaa gccataatag cggttaataa 420
gttagcattt tatttatcac ctaaagagaa cttttgcttt caattttaac atcttcttaa 480
aatgtgtttc tagaaagatt tataagcaaa ggaaatgttg agcaccattt gttatctgta 540
atagtccaaa aaccagggtg ccagcatctt agaaaacaat gaaatcagtt aggtagaagg 600
aaaagcttcc cagtccaaaa tatttaaatg aagcatttgt atattcctag taacaatttt 660
aactaatcac tgtgtaatta tatgctttga attattgcat ttatagacta aatgtacatg 720
aaaatttgtc acccttatga attaactttg aaatgttctt ttctatcaaa tgtcttttca 780
gtgggaaatg ttctgacctc tctgtagcaa cattatcagt aatgtctagc agagaagatt 840
attgtttgta agttcatgca cacaaataat ttgcagtaca gtttttctag ttgccacatt 900
agaatatctt ctaatatata tgcgggaata ttggctgagc caagtgtttt cagccgttgt 960
gtggttgcac taaactaccg gtcttaacaa attcagagct agctcgtttt ttctcgttta 1020
tcagggggca tttatattat tttccaaaat atgcctctca ttccacctga cctgcgaaca 1080
tcaatctagc acccccttcc agagtctcta gattcccttc cccaccccca gccccacag 1140
agggcaggag aaaagaaatc actaaaaaca acagaaaaaa catagtcgaa ctgtactgga 1200
gagagaatgt gtgagcggca actttgaggc cttgggatgt gcagaagggg tcgagtgcaa 1260
atgtttgggg acctgcttca aacctgttcc tgtgagcagc ttgtttacac aactaacct 1320
acattcttcc agccagcccc agaactctga gaatataatc aaaagcatat ccctaagatg 1380

```

```

caaccagatt catccagtga ttttaatttta agcactgctt' cgccatttta ttccataatg 1440
tacttagaag cacttacaat gtctgaaatt aatcaacagt gtccccaccg gtccctcggt 1500
tctttccac ccacgtatat tattagcagg ttatatctcc acctttcaag attcacgggt 1560
atgtctacga cgaatgggat ttgccttgac ttcatatat aaatgtcgaa gttgctttat 1620
gaacacatct ttggatgact tgttgcatth ttattttccc ctccggaggt gcagggtttt 1680
gtgctgtctt taatcctgag accatgtgct tgatccta atgcaaataatt caattagttt 1740
gattttaaaa ttcccttctt ctccctgtg gttttacgag agtctcttaa agcaaaaacg 1800
aattctggaa agatataaat aacttatagt gcaagcaaaa tgagttaact caaagtttct 1860
ccaaaaatga gatgaactac aatttgaaca ttataactat attcatataa tccattaaac 1920
aaagcaaata tatacaatat acttatcttg gatgataatta aatacctttt gaaaggggta 1980
aatttgggct gcgtttttag gactgctttc agccaaactg tgttaagagt caggctcgcc 2040
tgttactgaa atgcaccgtg cctcttccct ctgacgcacg cgtttccgtg agacttagtt 2100
ctgttctgct cttttacagg cagtgtgtga agaaaccctg aaggctgggc ctcaagtagg 2160
tctctttcta gatgcagtcg tttttggagg agaagacttt' cgagccagca taggtgtcaa 2220
agacatctct ctctctcttt ttctgtgtgt gtgtgtgtat atgtgtgtat atatttttct 2280
tttgccctc aaggatggac atttacataa caatgtatat ttgccaacca tgacaatggt 2340
ttttaatgac aatggaatgg aactacttct ctgataattt agggctcctc atagctgccc 2400
tgcttctaga gcactgcatt attacttctg ttcatttata aaagacacga gcaatagaaa 2460
gcctgttgca gcgccaggc atgctcagga atatatggca tctcctttgc tcctaataaa 2520
tatattatgt gaacagcc 2538

```

&lt;210&gt; 109

&lt;211&gt; 1606

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 109

```

ggactgctct gaggcagcag gcagccctgc ccgaaagggtg aagatgcggc ggactgagt 60
ctaccgcgc ccctcctggg aactctggct catccttacg tagttgccc tccttttgtt 120
ttgaggggtt tggttttgtt cattgggggg tttttgtttt ttgtttttt tgattctata 180
tatttttctt tgggtttgtt gcctgttaag gctgaagaat agaattggcc aggacctagg 240
ttctcatatt cttggtattc ctccctggatg gaaaggctgt tggcatcaat aggggacaga 300
ggctgattg gtagtgcca gtagagggtg tggagcagag cagccatctt ttaagtgggg 360
ctgtatcagg ctgggtttat ttaaaagcaa caaatgttt tgggttaagaa aattattttg 420
ctttcagtg aaatcttgc agtgttctaa acaaagttca gtcttctgct cgccctttc 480
cctcactgat gtctgcactt gggtgaggtc tcctggagcc tcacaggctc tgcgtttctc 540
cactttctac ctgccatcca cgcctgcaa gctcatgcaa acacccttc ttccctctgc 600
ggcagagttg ttcagggtgc ctgggcaggg gcttaaacag tgccagcccc tgccatccc 660
aagctattgt taagccccc aggcgtctc caccacgcc cactagcctg ccatgtccac 720
agtctccttg gctgctgagg ggctagtgc gtggtcctga cctctcttat caagagcaca 780
cttctttgct gggtgctcct tttgagcata tgcgtgtgat tatttggaa agttagactt 840
gccacgttgg gtcagtttta gaaattgttt ctagctagag ggactgggtg ccttccaagt 900
ctagcatttg gggataggaa aattgttgt gtgtgtggtg ggggttttgt tttcttttt 960
gagttttttt tcccccttta gtctcctggc tttttcctt ccttccctt ctccactggc 1020
cagcttgggc ctcatctca tgtcatcct cttaggaagg gcctgcccc tctgtctgc 1080
cggcagcatg catccaaggc cagagctcag gctgcagac tgggctgggt cctctcgcg 1140
ttcagggtat gggagtgggt gaaggggctt tcaaaaaata ataagaaaa aaaggtaaag 1200
tctttggtag cttctatcca ctcatcct ggaaggcagc aagggtttgt ggatctagat 1260
tcattaggaa tgtcttcttg tcagccaggc caggacccgg gcttgccaag agcagaggcc 1320
ctcccagcaa ccaggatacc accactttgg gggctttgtg tacagaggtc cgggtctgag 1380
acctcatagg ctgcagaaat ctggggcagc caccatcaag aagccctct caggggccag 1440
aactcctttg ccagcgtgga tttctcaagt cgggactgca taattaaagc agttgcagtt 1500
ttattttttt tacagctttt ttcccaaaaa tgattttag ttgtgtgtgc agcacttgcg 1560
cctgatatgt gtgctctaca ataaaaacca aatctaatat attttg 1606

```

&lt;210&gt; 110

&lt;211&gt; 1997

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 110

```

cttctgggtg gtttgatagt gtttttaaaa gtaatatata atgtgggggtg aaatgggagt 60
aggggggttg acaggggaga aacgaaaacc acaaaaagaa aacccaactc ctctcctccc 120
cccaagctca gttaaatccc ccacctcaa ctttccctcc accagtgtgc ttgggatcct 180

```



caatgaactg tgcttttgcg tttctttctg catgactatt gtaactagat agaacattaa 240  
 gagattttca agatcaaact tccatagctt catccactga atttgaaggc atccaccttt 300  
 ttctccattt gctaaaattt ggtgcagttt gagtttatgt gaataggctg gctgtgcctg 360  
 tagagctctt gtgttttttag tgatgacatg aaatacaaaag aacaagctat ttccaggaat 420  
 gtgttctgta ttttaccatcc cagtgtaccc tttattttat tattaactaa ttaactatga 480  
 gattttttaa aaatggggcc gctgatgtgc aatatcaaag tgaacttgtg agtattttgt 540  
 gtgtgttgat ctcagttgtt tcttcattgt tgctgtttct ggatccagcc atgtgtgcgc 600  
 ttgtgtggac ctgaggctgc tttctgttcc caaagcttga cctgtgtaca gagataattc 660  
 cttggcaatg ttggacatag aatgcaggga gctactgaag gtctgtcagg gatttgtcca 720  
 ttctgctcct ggccctcctc gaggcctcat aatgggagac caaatcaaaa atgtcccatg 780  
 tcacttgagt ggtacactg cctacagaac cttgaggttg actcctgctt cagtctctag 840  
 ctgtttacca cagccctcca ggggtccaaag attgaggagc tttctcttcc ctggggaggaa 900  
 ctgtctcaga tttagcttgt gtgtgttttg gacagaggct ccacagcggg ggctcttgag 960  
 gaatccctcac cagtttgttc tcttccctct gacaagcagc acctgagcag atgtctgaggc 1020  
 agttcattaa accaggcctc agcttcagtg cctcatcttg ccatctcccg gccaggctgg 1080  
 gaacgggcac caagcagccg cctctaacaa acaccatggg ccgtggaagt tcatgccagc 1140  
 agcttgccct tgagaagaaa tgctgctggc tctattttta cattcccttc cacctctata 1200  
 ctgtcatgtc accgttctga actcccatg ctgagaagga actagtgttg gtggtatgta 1260  
 acaagagtta cgtatccagg ggcttgtgcc ttggtttctc ctttgattgc tggtaaattc 1320  
 tgaggccaca gagaatgca ttgagtgtga atgttgtcat ctgtaatccc tccctcagct 1380  
 gataatggta gttgatctgt tgtgaatata tgcatatag catatttgca ctccagatg 1440  
 ggttgcataa gaatcaggtc cttaaatacc cccaatctg atgaaacgat agaataaagt 1500  
 aacatttccc agaatggagg aatacattat tttttcgtat atttttgtcc aagcgatggg 1560  
 ctgcccgtgg ttttgcttct ctgcattttt tcagtgtgta catctggtgc ttttcattgt 1620  
 tcatttgtga gccacaaatg caaagtggc attgaattc agtcaggcta caggggtggg 1680  
 tcagtcaagg tctttcaggt gggggagaaa ttggttaggg ctccactgc caaatgcaag 1740  
 cagatagcat aacctgactg ttttggtccc tcaggcagca tgcttaggga caactctgtg 1800  
 gcctggggga catctgtgtc acagtttagg attgccattc aggtgttttg taccttttcc 1860  
 tttctgacg ttttccctt tttttgtact gatccaactg ggagaacctc agccaatgct 1920  
 ggaagtatga ttgaagttcc tctttttgt tacttttgta cagcttaatg tgcaataaag 1980  
 gaaangttnt tcttttc 1997

&lt;210&gt; 111

&lt;211&gt; 1679

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 111

gtctggtgca aacctcacca gccccagggt gcccctttct gcctacgagc gtgtcagtg 60  
 cagaacctca ccaccgctcc ttgaccgagc taggtccaga acaccaccgt ctgccccaa 120  
 ccaatctagg atgacctctg aacgggctcc ctcccttcc tctagaatgg gccaggctcc 180  
 ttcacagtct cttctccctc cagcacagga tcagccgagg tctcctgtgc cttctgcttt 240  
 ttcagaccaa tcccgttgtt tgattgccc gaccaccctc gtagcagggt ctcagtcctc 300  
 ttctctggg gcagtggcaa cgaccagtc ctctgtcggg gatcacaaatg gcatgctctc 360  
 tgtccctgcc cctggggtgc cccactctga tgggggggag ccacctgcct ctactggggc 420  
 ccagcagcct tctgcattag ccgcccctga gccagcaaaag gagcggcgga gttcctctc 480  
 gtogtctcg tctctagct cctcctcctc ttcatcatcg tcgtcgtcgt cctcctcctc 540  
 ctctggctcc agttctagt actcagaggg ctctagcctt cctgtgcaac ctgagggtggc 600  
 actgaagagg gtccccagcc ccacccagc cccaaaggag gctgttcgag agggacgtcc 660  
 tccggagcca accccagcca aacggaagag gcgctctagc agttccagtt ccagctcctc 720  
 ctcttcatct tctcctcct cctcctcctc ctcttcttcc tctcctctt cctcttctt 780  
 ttcttctctc tcatcttct cctcctcgtc gtcttctctc ccttccctg ctaagcctgg 840  
 cctcaggcc ttgcccacaa ctgcaagccc caagaagcca cccctggcg agcggagggtc 900  
 ccgagccccc cggaagccaa tagactccct cagggaactc cggctccctc gctactcgcc 960  
 tgtggagcgt cgccgtccct cgccccagcc gtcaccacgg gaccagcaga gcagcagcag 1020  
 tgagcggggg tcccggagag gccagcgtgg ggacagccgc tccccagcc acaagcgag 1080  
 gagggagaca cctagccctc ggcccatgag acaccgctcc tccaggctc cataaattgt 1140  
 ctttggggga ttcaccaca cccaatgctc tggagccaca aggagtgtcc cttcttcccc 1200  
 agcagagccg tgggagggtc cttgtctgct ctctttttaa ccttggcagc ccttggatgg 1260  
 aggtctcctt tctctcccc tttttttttt ctttgttct gtgaaatgtt aatctccgtg 1320  
 agttcttctt ggttcatgtg ttctgggggg tttgggggtg gagggaaatg agatgggagt 1380  
 tggggggagg gaggatacag ttcaggatac ccagcctgg agtcagggcc agggaggcat 1440  
 ggccccactt gtatccagaa gttcccagg gtgattgtga tgggtgttgg cactggagg 1500  
 tgtataaggt gttcttggaa ggaaggggca ggagttggaa ttagttgggt cctactgtcc 1560

cccatgaggt tgtgaacccc tcccccaac ttttcatgtt tcttaaaggc attttggttt 1620  
 tttaaaatct gtacagcaag agcgaacttt tctgtcaca taaaaatgag aaatgcagg 1679

<210> 112

<211> 2444

<212> DNA

<213> Homo sapiens

<400> 112

cagaggttgc agtgagccga gattgcacca ctgcactcca gcctgggtaa cagagactct 60  
 gtctcaaaaa aagaaaaaaa aaaaagaaaag aaagaaagaa aattggggat aggagaacag 120  
 caaggtgggc atttcccgga attgtgtgca gatgcatcca gtcgtggcat tgcaagaagt 180  
 ctgtctgatg aagctcggga agcattttgc aatattccct ttggctgtgt tctgtgttc 240  
 cctgtcccca cttttcttcc cctggtttgt gattattagg agagagggtt tgcaaagact 300  
 cgttgctgtg aaagaatctt tttttaattt ttatcctaga gtcagtcact tttattccag 360  
 gtagtcatgc tgatctgctt atccaaagcc agctaaccag gttcatccta ccatcctcat 420  
 ggaagactgt gtgtatgaat tggagtaaca gaactgaaat acacttaaac agtgacagca 480  
 gtacttccca ggggtggggc catatttctc tgtgtcctac tctgagcaac tttcagaga 540  
 tacgaggggg ctagggtttt cccatctggg aatgggggtg aaagtctgca gattgttaaa 600  
 tgaaatatag aatcagagaa aaagaaaagt cagtgatata aatagatcat ttcatagaaa 660  
 ttagggtaga tttttatttc aactactact ggagaattta ataaaaggca tttttgaaa 720  
 agtttttcta acatagattt aggggttttt ttttttagagt ggacacacta catttaaaag 780  
 caattatttt gctattcaga tttttatta tctgaaaatg aaattatctg ttttactttt 840  
 caaagctttg tgaaacaaac ttgaagtat agggaggtaa gccatctcca actctgcagg 900  
 tcaaacgaaa gtttgggaaa tacttttgac atcccacaat acagaatgtc ttaacatgag 960  
 aattgaattt catgatgtgt ggttccattt aatagcggac accaccccaa tctcatgttt 1020  
 tctgttacc ctaaaacagt ggaaggaaac tgggtgtttg gtagacttct aaatcatggt 1080  
 ctctgacaat ttgaatctga gattctcacc tccatttact aaagaatcgt gacttaattc 1140  
 aaattgcaca gtaatcagta aagtgaatac gtttttaaaa tgggaattttc tcccttcagc 1200  
 aagcactcat taaggagtga ggctgagtag ttttaagatag agtgagatct gtgagtgtat 1260  
 gaaaggtgat atttaaaaac ttggatttca ttccagtgtc aggtttgggt ttttaagttcc 1320  
 tttggtccag ggaagggtcc aagcagccac agttgcccta aatctccatc attaagtctt 1380  
 ccagcaaggt taagtgcagt atggaaggag aagggggaag aggacggtaa cggccccaca 1440  
 ctccaggctg agaaagagta attaggaggc ctgaggaggg gccgaggaaa ggctgttggg 1500  
 gtgtgctggg gttggtaccc gagcgccctc cctcacctc aaccagagaa gagcatccgg 1560  
 ttgcttttta aagcttttag cctgccctag caaggacaaa gcatgttaga ttagagatgc 1620  
 tttctgtgat cgcaggggtt cttatttgaa aacatctatg atgggggtgg ggtgggagga 1680  
 gacaggttgt ggttatgcag gaaaatcttg tcctaaaaat atatgagttt gggggttaagg 1740  
 ggtgggatag ccaagcaaaa tcagtaatta ttttaaaatg aacatatgta tttttattaa 1800  
 ctttttagtta aatacagatt ttacaacgag gtcagcataa gcctaaatct atatagaggg 1860  
 ctaactcagg cattgtcttg tttatttgta gactggatta aaaacaacct gtcctgtttt 1920  
 gtcagttccc agcttctctg tttagaataa attagaccaa aagaagaaac gtgcttgtct 1980  
 ctgtataccc gcagaatgaa gttactgttg ttaaaactgg attttttcat tttactaggt 2040  
 tccgaagagt ccagatgctt ggtagatgtt caatacgtga tttttttttt aattgaaatg 2100  
 gttcatttaa aatctcctt aacatttcta gaaagacttc tttcaataaa taatggaatc 2160  
 ttagaggaaa agtgggtttt taaaagctag ggaactcctc cactaaaagt aaccattgga 2220  
 aacctcgaat gagggctaaa gttttaatca taagagaaaa ggcagcataa tgaaatgtgt 2280  
 acacatacat agtcagtggg ccatttttag aagccagtgg cgtctgataa agaaatgtta 2340  
 agagttagta ggttgaggaa ggaaattgtg gggatttgaa atattctctt tatgttggtt 2400  
 ctcttctgag tcattggtaaa acaataaatt atcatctcta ggtg 2444

<210> 113

<211> 1389

<212> DNA

<213> Homo sapiens

<400> 113

tttttttttt tgatagtcca gtagattctc aaagacctaa atacatacag gtgacctata 60  
 tatacacaca aacacaaaaa agcatgggtc cagagctggc acagagtatc cgagctagaa 120  
 aagttaaagt gatcacctaa ttgaactctt cacagttaga gctgagagag gcaaaataac 180  
 atgcttagaa ccacaggcca agaagggtag agccaggact gaaacccagg tcttctcatc 240  
 tgggggtgagg gtccctccca gcttgtcaca ctaacctagt gaaaatcaac aagctaattg 300  
 tgggaggaga gggctattca atgtttttac ccactagcct ggcaagca ccaacgaatc 360  
 agtgggcaat atcaggctgt acatggaacc attgcctcac ggctgaatat aggctatggc 420

```

tctctctaca cctacagcta cttggcaaa agctctagtt cttaacctaa tcatgatgg 480
gatcagtgac atttgccaag tattccattt cttggagaa aattgtgcat ttacacaata 540
gcatgtctac tctcacctct ctcaattcta taagcagaga gagaaagtgt gcatgtgtct 600
gagtggtggg gtagcattaa gataccagag aactgtcata tgagaacaag atgacaaaaa 660
ggctgattgc tgttaatgtg cattcatctg tcagagattg tgtaaaatga acccgtgg 720
taaaggcatt attcaaata cagccacggc cctggaacgg aactaagtgt tgggtgcagg 780
aaacaagatg ggcagctccc ttttcccaag cctggcatca gaagagttag atctaggaaa 840
gacctgctag accatctttt tttctgggcc agcaggacga tgaagccaca ctggagatta 900
cccaggacgt agtttcaaag tgagtcacga ggtcccatgc actccctcag ggagatgcta 960
ctccagcctg gctttcatgt gcttagtgga ggcaggaggg cttctctcca ggtgatacct 1020
cagcacacac tgtgtcatga gatccaacct cagttttctc acatgcacaa tggggaagcc 1080
accacacgtg gtaaaggtag atgggagaga cagtggaggg agaaacaaga ctgtgtctta 1140
agggcaaaac tatgaagttg ccccatgatg gacaacaaca gaggtgtatg aagatacctg 1200
aaaggagacg agcagccctt aggacagtag gtgtttacat ttaacctaat cgaaagtcaa 1260
caggctgggt tcagtggctc atgcctgtaa tctagcact ttgggaggct gaggtgggtg 1320
gataagctga ggtcaggagt tcgagaccac ctggccacca tggcgaaacc ctgtctctac 1380
taaaaaatat
1389

```

&lt;210&gt; 114

&lt;211&gt; 2456

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 114

```

gtaaagacgg ggtttcacca tatcgccag gctggtctca aactcctagc ctctactgat 60
ccaccgcctt cggcctctca aagtgcggg attataggcg taagccacct tgcccagcct 120
ccagacgcct tttctataca actctgcaca ggcaattttg gcctcagagt cctccagcag 180
gtggcagact ccagcacagg aacaaaatct gtctaccca gaaatctctt ccaagttgac 240
acagccttca taagcaagag ccataactgt gatgaatgcc tgttgtcatt ttaagcactg 300
caagttatct cacatgaata ctgaactgtg gtccaagcat acaggggaat gcatccccct 360
ttcaatcaca cagacatcaa cacatgccat aggtgggtaa tgtcaagcaa tattcacccc 420
ccgcccctga atccttcaat tggtcaggag acaccctgta tctactgcaa agacttctgt 480
tttctcctcg gttctgtatt ttcccaaatt cctaccctgg tacgtactat tttttcttaa 540
ttacaaaata atcattaact tttaaaaagc catgtacaac tagttgacat aataaaaaatc 600
cacctaactc atcttttagt aactatggct atgttgtaac aattttattt tgatttttaa 660
aaaagggaatc tcttgattta atcagggtt tgggggcata gggggattag tcactgtcac 720
agtcataata atgcatttat tcagggaaaa ctttaattctt ctttgtcttc tccaaaaaca 780
gctgctggaa cacctcaaat taagggatgt tcatctaaaa cacctttact gaaacttgat 840
tccttgggcc agagggaagt ctttactgta gttgatagta caagtagacc ttctcatgta 900
ctggtttccg gcataactgc cagactccct gccaccacca gtgtgctttt ctctccaaa 960
ggcacctcca atctcagccc cacttggttg aatgttgaca tttacaatgc cacagtctga 1020
tcctttaggt ccaagccagc gaaagattct gccagatct ttggtaaaga tgctacttga 1080
aagtcctctg tttacttcat tattccatgc aaagacctct tcttcattct tgaattttaa 1140
gacatagaga atcggagcaa aagtctctgt gtgtgcaatg gacgcactgt ggccaagacc 1200
tgtcacaaat gtcggttcta cataatttcc agggcgatcc ataaccttgc ccccatagac 1260
cactgtgcca ccttcttctt ttgcttcttc cactgtctca agaaacatgc tcaactgctg 1320
cttggtgtgg agtggcccat agagaacatt aggggtcccat ggggtcccaa ctcgatctg 1380
tgcataggcc tttttaagtc tgtttacaac ctcatcatgg atgctttcat gtataaacag 1440
tcgctcgca gtggtacacc tctggccagc tgttcccaca gcagcgaaga gagctgatgg 1500
aacaactaag ctgagggtctg catcttcaaa ggcaataatg gcattgtttc ctccaagttc 1560
caacagactt ctcccaaacc tctcctgcac catcaggccc acctgttttc ccactgagt 1620
gctcccagtg aaggacagca ggttcaactg ttcacttttg gccattgctg tgccaatata 1680
tgctccacca caagtcaagg aacaaattgc accaggcagc ttgttgtcct ccgaacctt 1740
ggctattatc tttgtgacag ccacactaat gaggggaagt gttggagctc ctttccagag 1800
gcagacattt ccacagatca tggcgatggc gttgttccaa ccatacactg ccacagggaa 1860
attgaatgcc gtgatgattc caaccaggcc tacgggattc cactgctcaa tcagtgcatt 1920
gccagatctt tcagaaggca agataggctc tccaatcatt cttgataaac caacagcata 1980
gtcacagata tccacatact cctgaacttc acccacacct tccactaaga ttttccccat 2040
ctccaaagac accaagcttc ctagtacttg gatcttctcc cgcaaggcat cgccaatctg 2100
tcttccattt tctcctctgt ttggagcagg aatatctgcc cagattttct atgttctct 2160
tgctttcttt acagtttctt catagtctgc cacactggcg tgtcggaact ttgctattgg 2220
ctcgttggtt gcagggcaat aggtcgtaat aacctctccc cggcctcccc agcttccatt 2280
atacacgccc tcgttttctt cgcggagccc cagctcttcc agccacgcat actggggctg 2340
attgatgagg agagtggaca tgaaggcggc aggcctgctc caaggtccag agagcttgct 2400

```

gggtctttgca gcggtgcacac acagcgcgcg aggaaggcgc cacatactga gcccga 2456

<210> 115

<211> 1632

<212> DNA

<213> Homo sapiens

<400> 115

```

gggcactttt ggaaaactgc tgaaaaagaa ttagtttctt tcatctgcag acctttgtcc 60
aatacgggta ccatttcttt atagtaactc gattagccat atctgtttgt ttctagtcct 120
gtcctcttgc tcctctccta tgccttccca gtgctggctc cattttgaag actcaaggac 180
agagggggaag cagatcataa agagaaaaag gagacagaag aaaggatgaa ggaaggaggt 240
catggggagt gtggcttctg agcagtttag ttgctgggga gagcagacag tcaactgccta 300
caatacagac agaactttcc tgcctacttt ctgtcctatc tcttctgac cttatgaacc 360
agtgttagta gatgattaaa acatgacaag caatggctcc ttattttcac aggactaagt 420
ccgggccttc gtatcactag ctgttgccct ttacacctg cttcagccac cctgtccctg 480
tcattggccc tggacttctt ctctgtgccc gtgtgtcctc tgctgggag cctctcctc 540
ccatagtcac ttctctctg ccaaactcat ttcttctgt gcccaagacc tctctcctga 600
gccccgtgg aaacttcagg aaggatgaat ccgtctttgt gctccacggc tcgtaccttg 660
atcaggctgt gcatcacagt aattccgttc taggtaggca gattgatct ttgtctcatc 720
tgccaggctg cgggctcttc aagggcaggg accttgtcat agtcattttt attttcacag 780
tgcttggaac atggtggaaa atgaatgttg gaattattgg agtaataataa tttgtatcaa 840
atgtcctttt gaattaagag atttagttat gtttactaag aatgtaaact ttgaattggg 900
ttgcatttta acaattagga tggtttattg atgtgaattt tgaaatgtag aggtataatg 960
ttaaattatt ttatacttta tggaaatcat gtgaaatgtt tgaaaaaatg ccgccattat 1020
cctctgggat ttctactct ctggaattat gtgctgtaaa tgatcggctg taaatgtgag 1080
gcacaccacc caccctgtg tggaaagtgt tgtggcgtt cctgccacc acccactct 1140
ctgccgttgc tccttgtgac acttgtctgt cgtctcccat ccaaactcca agcttacagc 1200
tacctcagta ctgctttgct tgtctgaaac acctccttg ccttcttca gtgtcccgct 1260
cagggtgcagc ctctcccta aagctcatct cagcttttga tctgaatgat gatggaaaca 1320
tgcagacagc ctctcagctt tactatttaa tgtttagctt gggaaaaaac ccagagaggt 1380
taactgatat actgggttgg gactaggatg tgggttttgt gactotgaat cccatgttct 1440
caaaactacg tgcttccga agtctggcat ttgttagctc atgttctctt gtagtccagc 1500
ttcttatgtg cctgttatat tctccagtaa gattgtaagc cccttaaggg cagggacggg 1560
ctttgcatct cttagcactg ctatagtgtt ctatccttag ttatgaacta gataaataaa 1620
tggtggggca ac 1632

```

<210> 116

<211> 1673

<212> DNA

<213> Homo sapiens

<400> 116

```

tggccccaca gtcctgcccc tgactggcct tactgatgag agcatgcctt gcattcctgt 60
cccatgaaac atacttggat gccatgtctg agactgaaca ggatgggtggc tgttgtcttg 120
cctgtgatgc ctcttacgga ggcaccaacag gctgtgtttg ctgcaggcca ggggcttggc 180
ttggctccct ggctcctggg gctgctgac ctaccttgg tcagggtctg agcctacaac 240
ttgtgtgaag agagggggccc ttccgggtccc actctctcga agggaggaag tcttaccagc 300
agacccttca gaccaaatta gacgattggc tcaaagagga gttctgtcct aatttgcacc 360
acagtctccc atgactgtcc cctttctcac atcttcccac tcacccccac cctgtctggc 420
tggagcctat gaccggtcag ctctagtca ctgccaggca gagccagctc ttctcccaga 480
ggtgcacatg cccaggcct gtcaggcct tgcgtttgtc atcccttctt cctctctggt 540
ctcatgtttg agttgctgcc tcttctcctc tctcttatt cctcagtggt gaggcacttg 600
tcagcctccg actgtctctc ctttctctga cttgaaagcc tcggctgctc acaggccagt 660
gacttccaga ctttgggtctc ccagatgttt ttgagctctt agtgggtgac aggacctatg 720
tcagcctctg ggacagaggt ggggtggtctc ccagccacac gacggggagg tcacaggcct 780
ggagctgccc gtagggtcct gaatgtcagg caagggaaac tgggaggagg cattcccagc 840
aaagcagcaa aaacgtgagg agtgtctggg gtggcgacaa ggtggcagggt gtgggatggg 900
aaactccagg tgtgggcggg ccaggctgag gctttgccct gtagaagctg ttgcagggag 960
gggctccatg ccaggggggt ggcattgtcc atgaccacag ccacgcttg ccatgtgtgt 1020
tgcaagaaaa gacctgagt tgatgaggga gagaagttga agttgggagg aaagtgggct 1080
tttctgatca gatgatgctc tgattcagac attacatgcc ccctgctctg aacacagcaa 1140
taagataaaa aaaatacact tagaaaataa aaggacctag acaagtaaaa acaaaatctc 1200
tgaggaatag aaatggaaca gaacatacag tggtagagaga cagcagagac ccaggcacca 1260

```

```

ggacatggct tgagataggg agatgggctt gggagtctga gttccatggc agcagaagtg 1320
tgcagggtgtg gctcagcccc ctctgagcac tgggggaggt acctggggccc tttggaggag 1380
gctgaggagg ggtgaaggct tgttgagctg cagagaccag gaaggctgca gggcagggct 1440
gactggtggc taggtctgta attcccacag gtgaatctgg accagggtcc tgagatccca 1500
gggtggggagc cctgtcttct gaatgggggt gggagtgggg caggaggggc atgtgaggag 1560
gaagaagaca gcttcagctg tgctcatggt ggagctgcaa actgagggtc gggaacagcc 1620
agcatcccg acagtgccaa cagcatctac agtcagaagg cgtaatcact ccc 1673

```

&lt;210&gt; 117

&lt;211&gt; 1368

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 117

```

gctttgtgga tattcatggc ctgctgctaa actctctatt ctgttccatt ggtctatttt 60
ttcctgtacc atgtttaaca ctatagtttt acattatggt tcottgttta tttatttaac 120
aaacacttat atagcgtggt ttatatgcct ggttttattc tacatgctgc aaaatataaa 180
catatttata ctcataataa cctagcagga gtaggtatta ttttatttta tagttgtgga 240
aactgagacc cagagttggt atgtaactgg tctaaggctg tatatgcaat gttaccattc 300
atagagtatg acttctcatt cttttatttt tttttgaaat gtcttaacta cttgtggttt 360
ttattatacc ttaaaaaat tagagccatt tcagaaatct ctttagaaaa ttctactgga 420
aatttggttg gaataaaatt gcatttacag gaagaatctt cattgtgata atgttaaatc 480
agaccatcca tgaatatggt ataccaatta cacctctcca ttaattcagg tcttctctta 540
tatcctgtaa taaggttact aaattttcat aataaaata ttttttggca ggttaaatct 600
gggattggca aatttctgtg gctgagcc ctttttggta cggcctgtga gtttaagaaca 660
aattttacta tttttaagaa gttatagcgg ggcacgggtg ctcagcctg taatccagc 720
actctgggag gccaaaggcg gcagatcacc tgaggtcagg tgttcaagac cagcctggcc 780
aacatggtga aacctgtct ctactaaaa taaaaaatt agccaggat ggtggcacat 840
gcctgtaatc ccagctacta ggaaggctga ggcaggagaa tcacttcaac atgagaggcg 900
gaggttgca tgatcggaga tcacaccatt gcactccagc ctgagtgatg ggcaaaagtc 960
catctcaaaa aaaaaaaaaa ataagaaatc agctacaaaa atgagatgct aaatacacta 1020
gaaaaatagc tataaatacc taagatatta ctagaggcca gcaaaccttc tgtaaaaaggc 1080
cagatctgtc tcaaaaaaaa aaaaacacaa agtgcctgaga ttacaggcat gagtccacaa 1140
gcccagtttg tctaaattta aatggccaca tgtggctggg acttctgtat tggacactga 1200
agttacactg tcagtaatca gctacaataa tcagctacag gcacctgtaa tcccagctac 1260
tcgggaggct gtggcaggag aatcacttca acctgggagg cggagggttg agtgatcgga 1320
gatcacaccn ttgnactcca gctgagtga tgggcaaaag tccatctc 1368

```

&lt;210&gt; 118

&lt;211&gt; 1493

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 118

```

ggaggacaga ggcagagtcg gggagcctcc ttggaactca gcagttgggt attttgtgat 60
acagtcatgg tgggtaaatc tgttaccac caagtatctt ctgaatgtca aatcctgttt 120
aatttcactt tcgctttgct gatctgtggc ctgctcata ctgagtgtca aagagacact 180
gagtgtcaaa gaaggaagta aacgtctttg gccagattta atttctgact ctgttgggaa 240
gcgaagtaac atgatgggtg caagatacac agaattggaac atcaggggct tggattcaca 300
ttcctcatct gtgaagccag ggcgttgccct gagtggctct tagggctcct tctggctcta 360
acattctgca cttttaggat tttaattcct gattgacatt tggctaagca gaagacaccg 420
gatgagagaa cacctattac agaccatctc tctctctcta gggacgactg gattgagcac 480
tggcctggga gtctgaagat tgtgccttca gacctacttc gtcacttact agctggcgac 540
tttggtcagt catctagttt ttccgggctt tatgttctt acatgtgact actaaaaggc 600
tagtagatta taggatttat taaagatcct tctgactcct aatttccagt ggtcagatta 660
aaaatagttt gctaataatg gctatgttaa agagctctga ccttggagtc aatttatggc 720
tccacatcca agctctacca ttcactagtt ttgcttttca cccaacccct ctgtgcctcg 780
gtttcctttt ctgttaaatt gggatatctg ttctgtttgc ctctgagggt tttgtgaaca 840
ttaaatgtgt gtgggaggac tttttaaact taaagtgcta tatacatttt aagagggtgt 900
agttactgct ccgttgttgg tcagctgaga taaatcttca gtgttccctg gatcctggct 960
ctggagtga gaaggtagct tggcagttga ctttgagtc tcccgtttcg ctgggcattg 1020
gcagttctgg gagcagagca gccttggcat gccatggggg ggattgtgtg tttatagaaa 1080
agtctgggac gtaagcgagg aaatgggcca cagctcagcg gaaggaggc cgggtggtag 1140
gatggaatgg tggagaggca ggctcaggtg tggccacca ggagctgcct tcccactttt 1200

```

```

tttgggaggt aggggtgggga agaagaaaag agcaaatgtt ttaaaaatac acatgtatat 1260
agaaaatagt aaaactgtaa ggttatctgt gtgttgttgg attctgggaa attcacattt 1320
tctctattct ctgtattttc caaattttct ataacgaata tgtatttctt agaataaaaa 1380
tttttttctt caaaatttgg aggaaatcgc tttttacaaa tgtgggttca tctttttctg 1440
cttaaccttt tttctcattt gattaaagaa ctaataaaaa tgtttttgaa act 1493

```

&lt;210&gt; 119

&lt;211&gt; 1753

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 119

```

gttatttcag atgacttcca aaagctgccca ctgcaaacat ttacattatt ttgcaactct 60
ttgttatttc cagatgtgac caacagttac attcaaagct taggttaaaa ttatattcat 120
ttaaacaacg attcatgata tgttagccgt gtctttgaag gtggtaaagc ctttgatgtg 180
tgcgttaaat aattgtcatt ttccgtgaat atttcattga acatggattg ttaaagtctg 240
tctgcaaaac aaaataggag atggatcatt acccccacta aagacttaca gaaaagaatc 300
cttaaataca gttaacgtag aattcagttg ctcaccaaaag tccagtgggt tacatgagta 360
tcttatctga atattgtgct tcctcttagt gaatatcagg gcttcaattc tgaattgtac 420
ataatgccct caggtcacca gtaagtggta tccatatctt acacctaate agtttcataa 480
atggcggtgt tctgatgggc agttgtgaag aacacaggcc cttttcttag cataccctga 540
atagctgttt gcctgagaat cagcatttag gctttgcaat ttacagcttc ctagtacat 600
ttctgtccag agatgctgtg tgtatttaac ataaattacc ttaagtgtg ggctgcttag 660
aagaacaact aaatttgttc ctcatgtttt cttattccct aagcagagaa aaaaataaaa 720
agaaatagag tagcttgtat gcatttttta acactcttat ggtagaaaat tgggaaattt 780
agaaacaaaa taacttttgg ttctatttaa tagttttgga ttttctctgt ttaacttaaa 840
tatgataacc agttgtgtgt gtgtgtgtgt gtgtgtatgt gtgtatgtgt gtgtttgaga 900
cacagtctct gttgccggg ctggaatgca atagcacaat catagctcat tgcagctttg 960
aactcctggg ctcaagcagc tgtcttgtct taacctctca agtagctggg actacaggca 1020
cacgcccaac taattttttt ttttttttta atttttacct gtagagatgg ggggtttcac 1080
tgtgctgccc agcctagtct caaatcccag gcctcaagtc atcctccac cttagctttc 1140
caaagtgtct tgattacaga tacgagtcct cgggttgccg aggtttacag actagataga 1200
tagttactat tggtcattca cacatttgtt tagagttgat agatttaggt catttcgccg 1260
tagggcgttg aggagatctt tgattgtaaa attttaggtt gctattctag aacaaaattt 1320
aattcactga aatagttacc tggaaaataa tttcaagtat gttgcatatg tttcactcat 1380
ttgtaaagct taaaaatgtt acatcatgtg ttttcttacc attgtottat gctactatt 1440
tactttgcag gtaaaatata cccaggacca taaacagatg aaaggtagac caagtctgat 1500
tttagataca cctgctatga gacatgttaa agaagcaca aatcatattt caatggtagg 1560
gtccaaccag atcattctta aaacatgcta aggaatgggc ggatccagtg cacggatggc 1620
attacttcac tattaatccg ataactaaca aagcatggaa atgtgggttg cttgtctttt 1680
gagggagggg catttctaac cacactgaaa tgcagtnгаа acatttagtc taataaaatg 1740
atttttctca gcg 1753

```

&lt;210&gt; 120

&lt;211&gt; 1340

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 120

```

cacgttcacc atctgccaca agacagaggt tgtgaaaaac acgctgaatc ctgtgtggca 60
gcccttcagc atccctgtgc gggctctgtg caatggagac tatgacagaa cgggtgaagat 120
tgatgtgtac gactgggacc gggatggaag ccacgatttc attggtgagt tcaccaccag 180
ctaccgggag ctgagcaagg ccagaacca gtccacagta tatgaggttc ttaaccctcg 240
gaagaaatgt aagaagaaga aatatgtcaa ctcaggaact gtgacgctgc tctccttctc 300
tgtggactct gaattcactt ttgttgatta catcaaggga gggacacagc tgaacttcac 360
agtagccatt gacttcacgg cttccaatgg gaatcctctg cagcctacct ccctgcacta 420
catgagtccc taccagctca gcgcctatgc catggccctc aaggcagtg gagagatcat 480
ccaggactat gacagtgata agctcttccc agcttatggc tttggggcca agctgcccc 540
agagggacgg atctcccacc agttccccct gaacaacaat gatgaggacc ccaactgtgc 600
gggcacgcag tatgtgctgg agagctattt ccagagcctg cgcacagtg agctctatgg 660
gcccaacctac tttgtcctg tcatcaacca agtggccagg gctgcagcca agatctctga 720
tggctcccag tactatgttc tgcctcatcat cactgatggg gtcctctctg acatgacgca 780
gaccaaggag gccatcgtca gcgcctctc attgcccag tctatcatca tctgctgggt 840
aggaccagcc atgtttgagg caatggaaga gttggacggg gatgatgtgc gcgtgtcctc 900

```

```

taggggagcgc tacgcagagc gggacatcgt tcagttcgtc ccattccgag actatgttga 960
ccggtcgggg aaccaggtgt tgagcatggc ccgactggcc aaggatgtgc tggccgagat 1020
cccggagcag ctgctgtcct atatgcgcac cagagacatc cagcctcggc cccaccccc 1080
tgccaaacccc agcccgatcc cagctccaga gcagccctga ggattccaca tatccaatgc 1140
ctcacagtct gcaagcctgc tcacccactg cttctgcttt aagccagagg cacctggaac 1200
cctggacttc actgggaggg ccaacttggg ggatcagtg gccttgacaa gccctccgcc 1260
tccttgctcg cagagggcct ggcactatca ccacctctct gccttnatgc caataataaa 1320
gctgatcttt attccaccac                                     1340

```

&lt;210&gt; 121

&lt;211&gt; 2077

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 121

```

cttttcactt gtaaacaatat aattaaattt gaggctcagg tgatccaccc acctcagcct 60
cccaaagtgc tgggattata ggcgtgagcc actgcaccca gccacattta ttttttgaga 120
ctgtcgcccc ggctggagtg gcggaatcac tcttcactgc agcctcgacc tccagggtgc 180
aagtcaatcc tctacctca actttccaag tagttggggc tacagggtgtg caccaccaca 240
tctggctaata ctggatcttg ctgtgttgtc caggctgggc ttgaactcct gggctcagtg 300
atcctccagc ctcagcctcc taaagtgtg ggattacagg cataaggca tgagccacgg 360
tgaagccaac ccttgatctc tttcttgag ataggaaact ccatttgctt tagtttcctg 420
gagcctactg taacaagttc atataaacta agcagaaaat tactcttggc gctggaggca 480
cttaagaatc ctaccttgcc tcttctgtc ttctgggtgtg tgcagtaat ccttagtggt 540
ccttggcttg tagctgcatt actccaatct gttgctgtca tctcatggtc ctcttcgtgt 600
ctctctcatg atttgcatt ggatctagag cccaccctaa tcaaatataa cgtcatttta 660
cctaattatt tccgtaacga ccttatttcc aaataggggc acattctgat gttctagttg 720
gacaaaatga ggggcagggc tcagtattca gttcctcctt cactctccaa atcactttgg 780
ttcatgagtt cagatggcat ggggtgctagt gctggtgttg atgtgatgct accaatgtaa 840
gcattagttt ctttttataa taacttgggc agtcagttct gggcactgac aaaattgagt 900
ttgtgatctt ggaatacttt gattatgggg atacagtgt ttgcctaaat aattgtgacc 960
cttagagatt ctgaggaact gacagcccaa taccttaatc aaagcctgta actcataaga 1020
ccctggttta ctgcatcagc ttggagtggc agggcccttg ttctcctaaa tgcaagaatc 1080
agaaggcact tagtgacaac tacatatgct gagcaatggg ggaaaaaaa gatactgcct 1140
gctttcaaag ggtgtgtgt aataactaat tctgtgttca tgattcagtc ataccctga 1200
acaaagttac ttttttcttt ttttgagacg ggggtctcact gtcgccaag ttagagtgtg 1260
gttgctgtat cttggcttgc tgcaacctcc acctcctagg ttcaagctat tctgctgcag 1320
cctccaagta gctgggatta caggcacctg ccaccatgct cagcaacttt tcttgattt 1380
ttagtagaga cagggtttca ccatgttggc caggctgggt ttgaactcct gccctcaatg 1440
tcactgccc acttgggcct cccaaagtgc tgggattaca ggctgagcc acttgccacc 1500
ggcccaaagt tacccttctg tcgaacggtt tatactgga aagggtgggt agggaaaggt 1560
gacctagggg attgcaaaat agattattgc agatcctacc tttgtgagct ttttgatga 1620
ggctataaag gaatttaaaa atcagattca acactaatc cgaaacccct cacttcattc 1680
aggggtgtgg cgaagatat gctcatgtgg tgttgaggaa agcagacatt gacctacca 1740
agagggcggg agaactcact gaggatgagg tggaaagtgt gatcaccatt atgcagaatc 1800
cagccagta caagatccca gactggttct tgaacagaca gaaggatgta aaggatgaa 1860
aatacagcca ggtcctagcc aatggtctgg acaacaagct ccgtgaagac ctggagcgac 1920
tgaagaagat tcgggcccac agagggctgc gtcactctg gggccttctg gtccgagggc 1980
agcacaccaa gaccactggc cgccgtggcc gcaccgtggg tgtgtccaag aagaaataag 2040
tctgtaggcc ttgtctgtta ataaatagtt tatatac                                     2077

```

&lt;210&gt; 122

&lt;211&gt; 1830

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 122

```

gatgaaaata accagaatga aaatagctag aaaactcagc aagcaggaag ctccctttct 60
cacccttttg ttcccttgcc gatagaatca gtcactatta gaaaaaatga aagacgctct 120
gtttaaaaca atgatgacag cagtacttaa tagtatctc gaggtgaact tatatagatt 180
gagagaggct gcatttggca gactgatgta taggaagacc catttgcttc tagcttctcc 240
ctgcagggaa aatgctttcg tcattatagc ctctttacac agactggcca ttctagttaa 300
acagggtgta aacctttggg ctgcccagaa acattttatc tgttttcact tacctaggaa 360
ggggaagat tagcgggtca tccaaaatct gtatgtaagc tatcttcatt ttcttcccca 420

```

```

accttctcct cctgggaaac acaaagtcta tctcatctga caaaagggtt tagaggataa 480
agctgaaaag attggattgg gatctttttg tggcttgggg cggagccttt tgctaaaaac 540
tcaagaatgc tgctttgagt ttagctaggg tggctctcag aactgggggtg cctggcattc 600
tcagcatttc tcaggggcct cccacctctg acaactgcag tgttagctaa tacatacctt 660
gagcatagaa ctgaatgctg taattcagag ccattttttt tttcaacttg aacattgtac 720
aattttactg caatttctt tgaactttct tgccactggt tggaaatctta aaaattcatt 780
agccttctcc tttctgacat aaagctactc ttcctcagag atgagttcct atgtatgtcc 840
tttgttctct caatagctaa ttaatgtgct tgaggatact tcagtggaaa aaaagggtta 900
aatatgcaaa ttactaataa atgtgtaacc ttatgttaact tgtgttacat caagtaacca 960
agctaactta gtttgtttca ctggactaag gcttgtgctc cctacttcag tattttgatg 1020
ctttccttga tctttgtttc aaaaaatgtt gtgaattttg gtatcattca aaacaaatga 1080
catttattag gtttcatttt gaaacgatgt acagacaagt cccaactta gaaaccggtt 1140
tgttcttaag gttcttgctg cagcccatag aagcccantg acctccacca cagcccaaat 1200
ggagggctgt gatagccaga tctgggtggc ttttgtgggc tgaccagac atttaatcac 1260
catctcttat gttgttgccg taagaaatgc attccaggtt gggacttggg atcctgagag 1320
cacattcgcc cctgtggtg gccgcttgcc accttgcaag atggaagccc agtctcctta 1380
ctaccaaact gtagtgttaa gcagagggag ggggtgagatg tttataggac attccctaag 1440
ctggggagtg atttttatca ctattcatgt caactgtact ttggtataga ctccctatca 1500
athtaataat atgaaaagcc taaaataaaa ctatgcattg tattctatgt gctattttat 1560
atcagtaaat aagcttatgc ttgccagttg tatacacagt tatgaggtgt atagaactga 1620
ctttgacagt attttttgca ctgtttccta tctgttttta taaagtctta tttagatatt 1680
ggacctgtgt gatgtttctc ctgcccttgt gcttgctata aaatgtttca tatgtgcctt 1740
tacaatgtg agatctttat tctaaccttt ttttgtaaaa gatattctatt gatttccata 1800
tgcaataaac ctttttttca gagaaaagct 1830

```

&lt;210&gt; 123

&lt;211&gt; 1962

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 123

```

ggaaaaagaa aattatgaga gttacttaaa ggtaacatca cataactaat gtcttctata 60
atcctatatt tattaatgca ttacaactct gtagattgtt agttactagg ccagtagcta 120
ggaattggta taaatttaaa gcaccttcta tctgaaataa ctatgcatga aaagtgaata 180
tatgtgtgag cagatattggc tataaagacc tatagctttt gcactttatg catatataat 240
caatcctttc tagttcagtg aattgacccc atccacaggc tgattcatct ttgtgttaag 300
gggcaaatga aacggtatat tatttctttg cagtctcctc tcagtcattc atcaatgtgg 360
ccagcttatc tactcccaat tatgttgttg atacatctcc aagccatctg tcacagatc 420
aaaaagcagc aaacagaggg tcagtcacag gatgttctga cacaccattg taactttttg 480
ttagagatga tccatttag aaaaagactg gtagaattg gagtgaaagg aacctacag 540
attagcccgat tctctcttta ttttcagctt tacagacaag aacaatttaa atctaaagaa 600
tttagtagat tcttctagtg tcacaaagct gtttcatgaa agaatcaaga ttataacctg 660
gatattctga ctctggccc agtgcttttt ctactttgt agctacactt tgaagtaaga 720
ttcaaactgt tatccactca attgccttat tcttgaggat gtagtgaaag aagaaaaagt 780
tttctggaat tccgtaaaact atatttttaag ctattttctt caaaattatt ttcataatc 840
acagatatat cattggaaga tataatttgc atatatgttc attatcagtg ttcttaattt 900
ggtattacat gtattctatt tttttctgaa tgatagcatg aaaagtgtca aagtgggttg 960
tccgctagcg tctgtctgca gaactttcag gatgactatt aattcctctc agatgtcatt 1020
tttgagtggt ccaagcctgc tgttttgaac ccacagcagt ggagatttgt attcttattt 1080
acagttgtgt actataaagt gtgtgttaca taggttttgt gtaataatta tttgtaata 1140
ttatttagat ttgtatttag acatgattta tatctaatat agatacaaaag tctgtgtcta 1200
aatattatatt aaagaagtga ttttctatc tcttggtatc tttccagtggt ggtgcctttt 1260
atatgcttca catagtctcc ttgttctcct actaatatc ccaagctcca tatgccaatt 1320
aaagaagaaa caaaaataaa agtttctctt ctctgtgaaa cattaagaag aggtgtgtag 1380
gtttaataaa ctttttaatg aatatttcag acatacaaaa aaactgcaga gcttcgtaca 1440
cttgatttaa ataattcttg agggatttta taaggtcatc ttatagacaa aattatgaga 1500
caccagtggt gttatcaatg ctttcagaat actgtgtgtt atgtaaatat accccagagt 1560
ccaaaactct gatataattca tatataattca caatgagagg atgtctgtgc caaatctgtc 1620
aatcagtaga atagaaaagt taattatata actacaacac gaaacacaaa tttttagaag 1680
caaattatgt cctgtaattt acccccctcc ccgctgtctc tctgctaact cattttcttc 1740
ttttccact ctaaatgtaa ggcaaccctt ggctttggag aagcatctgt tccaatattc 1800
tggtgctatg tgcctcagttg tactatatgc aaatgttact agacacagag gagatcaaag 1860
tggtgataca cttattgcta ccatttacag aatgatcaat ttgatagcta tcatacatgg 1920
ctagcaagac actgattttt ctaataaaaa aatttttaat gc 1962

```



<210> 124  
 <211> 1506  
 <212> DNA  
 <213> Homo sapiens

<400> 124

```

gggtctgtata gtgattgggtg ctcgaaagct cgggggtcaac ccagacaaca ttgccacgcc 60
cattgcagcc agcctgggag acctcatcac actgtccatt ctggccttgg ttagcagctt 120
cttctacaga cacaagata gtccgtatct gacgccgtg gtctgcctca gctttgctgc 180
tctgacccca gtgtgggtcc tcattgccaa gcagagccca cccatcgtga agatcctgaa 240
gtttggctgg ttcccaatca tcctggccat ggtcatcagc agtttcggag gactcatctt 300
gagcaaaacc gtttctaaac agcagtacaa aggcattggc atatttacc cctcatatg 360
tggtgttggg ggcaatctgg tggccattca gaccagccga atctcaacct acctgcacat 420
gtggagtga cctggcgtcc tgcccctcca gatgaagaaa ttctggccca acccgtgttc 480
tactttctgc acgtcagaaa tcaattccat gtcagctcga gtcctgctct tgctgggtgg 540
cccaggccat ctgattttct tctacatcat ctacctgtg gagggtcagt cagtcatata 600
cagccagacc ttgtgtgtgc tctacctgct ggcaggcctg atccaggtga caatcctgct 660
gtacctcgca gaagtgatgg ttccgctgac ttggcaccag gcctggatcc tgacaacact 720
gcatccctca ccttacaggg ctgggggacc ggctcggtag tggcctcctg gactctgct 780
ttttcactga ctggctactg aagagcaagg cagagctggg tggcatctca gaactggcat 840
ctggacctcc ctaactgggc cccgctggtc ccatttgctc attagaattt cctctcacat 900
cagtggtgata cagaattcag tttctccctt gccaggctct tgggatgggt gaccctgccc 960
tctgcagtag ccttttgtga gtctgctaag gtactctca cacacctcgg ctctgggggt 1020
gatacctgag cctgcaatag agccctgaaa tcaagagcat ggcttgagtg tgtgaatatg 1080
atgtgtgcac atgcttaatg agcgtgcaag tbtgcacacg tttgtggaga ggagggtgtt 1140
ctggcctgag aaggtaaaga agaggcatgt ccagtatgct ttgcagggtg tgtttgctct 1200
tttccatgcc catgcaaccc agattggggg ggagcaggaa ggagctcttt tctgttccca 1260
agcctcagaa ctcttgagct gtggcttact tgcgtctctc accaggttca agctccgtgg 1320
gccacactgc tgcgtgtgcca agaagggtga cagcctcccc aggatggggc ctcatacaac 1380
ccttcactct cactcaacat ttaattgtgt ccttgcgtgc tttttatttt cctttttgtt 1440
tgttagcaaa aacctctatt tagatttcaa naatcagaga agtgtaaaat aaaacagatt 1500
atattg                                     1506

```

<210> 125  
 <211> 2194  
 <212> DNA  
 <213> Homo sapiens

<400> 125

```

gaccatcctg gctaacacgt tgaaaccccg tctttactaa aaatacaaaa aattggctgg 60
acgtgggtggc ggggtgcctgt ggtcccggtc ggtcgggagg ctgaggcagg agaattggcat 120
gaacccgggga ggcagagggt gcagtggggc gagatcgtgc cgtcgcgtc cagcctgggt 180
gacagagcaa gactccatct caaaaaaaaa aaaaacaac aaacaaaaaa aaaaaacatt 240
ctgttaaaat aaaggtcatc aaaagatctt tctctaaacc tttcctttac cagaaatagc 300
tctagtgtca catggtcctt tctcccttct tgccttggtg ggaatccaaa gctaactctg 360
ccctgatctg gattgcaagc acctgtgctt tttggggccc ttctgcatta gttcttcctt 420
ctcttctaac ctcaaaaatg tgttttttct attggctctt tccctttaac atagaagtat 480
actcacgctt ttgttgatc ttgaaataaa agtcttcctt taccacatat ctccctttaa 540
tactacatct ctcttctcag ccaataactt ggggaagaga gccttgagtt tgtgtcattg 600
ttttctcacc tccagttcac tactttgtct actgcctgac atccagctcg ctccacacaca 660
cacacaagcc caatcactaa gttgccatag ctaatttgta gctttcctgc ctctctggca 720
aaatttgact ctgcattggg ataatacatg tcgagtacct attgaacagg cactgtgcta 780
gggtgctactg ttatagatat gaaaagaagg catcatctcc tttctaaca ctccacaggag 840
cagccattcc tgattcatac atgtctcttg actcccagtg ctcaactttt caagcttcac 900
ttaatgccgt gcaaatcacc ctattctcca ggtcttctt cttcccagtt ctcccttacta 960
tacacaactt ctcaaggcag tcacctccac actcatggct tcaattgctt tctccattct 1020
ctgagaacaa tagaatttta aatggtttta tttcatgtat tagctttatt ttatacaagg 1080
tgctcacct gctgtaacca tagattcaaa gttgctccat gaaagtaata aatgaaaaat 1140
gggtattttt tagcatgtaa attttaggaa atttcccag ttacgcttaa tggcttgatt 1200
tagtgtgtat gttatttttg aaaacatatg ttgggatgtc acaaatggac ttacgctaca 1260
gagatttata ttcaactttt gaccagagag ttccatttta atgtgacact gagagtaaaa 1320
aactatcttt tctccttacc ctatttctct tctacattc tcggccagga ggaaggcact 1380
gctacatacc cagtcttccc cagcagagcc tgagcagctc tgttttcctt ctacttcccc 1440

```

```

tcttctttca catctcatga ccaagcactt cctattctgt ctcccaaagt atcacagatt 1500
ttttcctcca cttttgtcac tgccactgcc ctttagcatga ctctgccttt agagaaagtc 1560
tcttaattgg ttgtgttgc tcttccagtc ttattatatac agaccactac acgcacatct 1620
gacagagact tttcaccttt ttatgggtga atgactgaaa ttcccagaat aaaattaaaa 1680
ccaccccgagc atcaaatctt aggtcaata gaggtgggtt tgtatcccag gttcatatac 1740
tgtccagcag tatggtctca gaaaactgac ctccttaagc ctttgtttgt gtatctgcct 1800
acactcattg agagttggga ctatttcaca catacagtgc ctggcatgta gaagggactt 1860
aatgttgaaa gaaggggagg cattttaaaa tccacatcaa aaaaatgttg ttctgttcgg 1920
gagtggtggc tcacgcctgc aatcccggca ctttgggggg cgggggcggg tggatcacct 1980
gaggtcagga gttcgggagc aacctgagca acgtggtgaa accccatctc tgctaaaagt 2040
gcaaacattg gctgagcgtg ggggcgggat cctgtaatcc cagctacttg ggaggcttag 2100
gcacttgaat gagaatcact tggaccagc aggtggaggt tgcagtgagc aatgattgtg 2160
ccactacctg ggcaacagag tgagactctg tctc 2194

```

&lt;210&gt; 126

&lt;211&gt; 1561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 126

```

gaagaaaata tactctgagt atacctaatg gtttattctc ttttattgtt gaatccacta 60
tttacatttc tttctttctt ttatgtatta gactggacta ggaaagggtt acagatctaa 120
ataaggaatg aggagtgtta ttatcattgt attgccatga ccacaaactg cggggcctct 180
cgcccttgcc cccccctg tggttttgag ggtaggaagc cttaccataa cccagttcct 240
gatcatgccg cctccctgcc gcttacctgg tcaggcctct tegetgtccc tacctacccc 300
aggcctctgt gtttgctgct ccgtctgccc aaagctcttt ccttggttag ccttggtgta 360
tgtccctcac ttccctcagg tgtctgctgt cttctcagcg cgggtgttca tgaatatcca 420
caatagtgca ccttgccact ccattgcctt acctgtattt cctgcatgg cactttgcac 480
ggcctgatac tatatttccc tcggtttgtc agttggctgc ctgcccctga atgcaggctc 540
ccaagagggc agtggctttg tgcctttgct tgctaggccc atgttgtgt gaacagtgc 600
tggcacttaa tagacacaga ctaaatactt gatgaattaa tgggaggatg aattcaccag 660
attccctctt gtgggtgact ctacacaaga tggcatttac tcgccagggt tccggctccc 720
ttcaaaagac agagaatgat ggctgggttc gttgtagctt gactcagtg caccacctgt 780
gcctgacacc cagttgacag atgtgtaggg aacaaaatta tgacgggatg gccacacagt 840
tggctgtttg tactcattgc tgccagctgt ctcccagaac agtcatctgc tctgtagggg 900
gagaaacagg gacatgaaaa gccctggaag gttgtcagga agcaatttta aatttctaat 960
atgtaaacat cggggctttg gcataatttg aaccattttg atgataggaa tggagggtgt 1020
aggagccacc ctgattaagt tcttggtgag aataaactgg tgcaccagac atttaccatg 1080
gctgaatcaa tgtgatggc agccgtgttt ttaatccatg ggcctaaaac agtgtccctc 1140
atacctgtct cttgctgagg cccctgtcgc aggtgagcca tgtctgactt ccgagccttc 1200
catcgactgc tcagtccacg tcttcagccc tatttcccaa gcttacctag tgagtccctc 1260
ttgactcagg ctggttcttc cattgtttct gccacctgca ggccatttgt gctccttgaa 1320
taccctgtgg tgtcatcgct gactcgtgcc tccagggtt tcccgtctct acggctctgt 1380
gtttcctatt gcttcatata gcttgcttct gaattagcat gcgatatgtg acactcatat 1440
gttatgtatc ttggtttagt ttttacagaa agatgaaaga ctcttaaaag ggatccttga 1500
gttggtcttg tacatctttt atatctccta agcctttgat gggcacttgt tccaaatggg 1560
t 1561

```

&lt;210&gt; 127

&lt;211&gt; 1651

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 127

```

ttagaacatc aagcacagaa gcagctgtat gatttacctg ttttttgaa actttaatgt 60
ttaccttccc ctatgtttta ttttctgtg gtgaacactt ttgttagaac atgggttttt 120
tatttttctt ggaaaaatat gctattagta ttacaaaat aattaattac ctgaataagc 180
agtataactt aaaagtcttc aaacattact ttattgatta cttatgtttt gtggtgcgct 240
ttcaacatcc ctaagagtta aatgtcttag tcatctaata catggaacag ggtcaaacct 300
caatgaaatt aatacttatt gcacaatcat aatatagcaa cctaattttc ttttatttat 360
aggcatatct ttaaagcttt cttctctttt ttgaacaaat gaagagaatc cagttagttt 420
ttgcctttca gaggtgattt gccacgtgca caaagggtct gtaggtgaaa agacaggctt 480
ttgggtttct tgaaacatca aaaactgaat ttagagaatg gttatctaac actcaagtca 540
atgttttttt tgaaattact agctattggt ataatacata tatatgtaca tgtatacata 600

```

```

tacatacaca catatgtaca ttacacata tgtaagtata cactcatata catatataca 660
catgtatata tacttgtgta cacatacatt ttgcctata gctagcaatt atttcattca 720
gatacacaca cacacacaca cacacacagg ctacttaaaa tagagagtga cttgagatat 780
acaaaaacag gaagaaaagc cctggaggtc atatagctaa tgtataactg cacagcaagc 840
agctatgtct aaagctaaca ataaaaagaa aatgtgggag ttgtgcaatt agttttattc 900
tcattttttg gaagaatatg ttcttggtt ctctaactaa aaggaaaaaa ttcaaaggaa 960
agttgtaaat attaggaagt aactgaaaaa taagaagcaa gataaagtgg ggaggctatg 1020
agaçcatata atgagcta atactttttca acaggggaca cctgttctcc cttctaactg 1080
aagacactaa agagaagcta agatcctatc ttccaatcat ttagtaattc ataaaaatccc 1140
attatttcat aactcaagt ttacctttga ggttgatgt ttacctcatt tgaactcgaa 1200
atagaagagg tttaagtatt tgaataagtt gggaaaaaaa ggaaaaatag tcttccctgc 1260
ccttgctact gatggtgaca ctacttgtaa ttactgtatt ttttggcaga acactcagat 1320
gaacagattc ctatgctgtg gacttttatt attctttttg atggctgata gtagaaagca 1380
cacagtaggt actccataaa tgtaagacta tggcagctgt ctagtacaag tgcttctcac 1440
tgattcttgg ttaccaggaa aaccagaaag cccgtcactt gccttgccctg caaaggcgag 1500
cctaaagaaa tttctctaac caaaattggc aggttctttc caccacaaaa ggctcttggg 1560
aatataactt atggggctta aggctaattt gagttgaagg gtatttgtaa tatttgattt 1620
gcttttagca gagaaaacaa taaaagaatc c 1651

```

&lt;210&gt; 128

&lt;211&gt; 1801

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 128

```

aagctacctc tggaaactga gttcgaagtt tccaaacctt atcccagacc ccatagccat 60
gagttataat aggcacataa ttaataatca cgtaattata atgtctatat tatttataat 120
ttgtatattt atatataatt tatttaactg catctataat ctataattta aaattacatc 180
aggtaagtaa ttacttacct actatagtgc ttctgccact tacaagctgt gtgacttttg 240
ataagtgcc taacctctct gtgcctctgc tgcctcctct atgagttaaa atgtgtagac 300
tgcttctcag aacaggggccc aacacatgtc tggtaggtgt ggggaattagc cccgaggatg 360
ctgatgacaa agcatttctg tatctgtttt gctcatgggt tctttgctca acctgcaag 420
gtgggcattt aatcactatc cctattttat gggtagggaa ggggaagccc agcaagttgg 480
ggtgactcac ctgagggtcac acagcagtc agcagtgagg gtcaggtact cgggttctt 540
tccaaagact cctgaggccc tggcttgaa aaagccagct ctggaccagg ccggaacaca 600
ggggcctttc tgaaccttcc tttcaggggc ctggggccgc aggggcctcc ggcccgtcag 660
ccaagtcttt tctcccaac atgccagcca gggaacacag acagccggac cccgtctg 720
ccactgcccc gccaggcccc tgtgccagga cagcgtgtcc gccaccggc gcagtgaaca 780
gctgttctg aggtgtggg ctggagccag gtttctgtca cttcaaggag ctctgtctt 840
cccggccgca cctccacagc cagcaaggac cagtcaggga ttttctgaa ctttccctct 900
gttataaaa agtatataaa catttacctt ttaaaagtaa cagctaactt agttgcgcc 960
tcctctgccc agcattggtc tggcagctgc atgtacgttg tctcctggca tctgcgcacc 1020
atcgtctgag gtgcataatc ttgtgcctgt ttgcagatga ggaaactgag gcacagggaa 1080
cttgagttgc ctgccaagc cccacagca aggcagtgct tgggtgggga tttggacct 1140
gacagggagc ctccctacca atcaggcctt cagggcagag tcttggggcc cagaaaagcc 1200
cagcccagct tctggtttta aattttataa cgtgttctt tgttcagatg attgaaggaa 1260
agcatattgc aggtagaaat agaatgaaaa ccttgaaca catgaaacca ggagtgcctt 1320
tgtgtgcagg tgacccttga ccaatgtggg ggttaggggc gctgaccccc acacagctga 1380
aaattcatgt gtaatttttt ttttttttt tttttgagac agggctctgc tctattgcct 1440
gagttggagt gcagtggcac aatctctgtt cactgcagcc tcgacctccc aggtcaggt 1500
gatcctcca gctcagcctc ccaagtagct gagactacag gcagtcacat ccatgccag 1560
ctaatttttg tatttttagt agaaatggg tctcatcatg tcaccaggc tagtcacaaa 1620
ctcctgggct catgcagctc gccgcctcc acctccaaa gtgctggaat tataggtgtg 1680
agccaccatg cctggcctca tgtgtaact tgcactcccc agtcaattaa cacacatttt 1740
gtaaacacac attttgcag ttatatgtat tatttactgt agtcttaca tacagtaaac 1800
t 1801

```

&lt;210&gt; 129

&lt;211&gt; 1510

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 129

```

gcgccttttt aaggttcgaa aaaacaaaaa aatagatggc aaatctcagt ggaatacagc 60

```

```

tttaaagtac agactatgat gaaaggggaag ttatgtagtt taaagtacat ttaatttttt 120
aaaaacataa atacgttttaa cagttacttc ttctaactt aacagaggcc tatactcagg 180
gaaattctgt tttttactcc ctccctctcat acatatgttg atacctgcat aaacatacat 240
acatatcaca catgtataga tgggtgtaga aaatttcaca aatacagctt gattagcttt 300
cacaaagtga aaacagcaaa gtaatcagca ccctgtgtgt gtgtgtttta ttgctttatt 360
aatgcatgaa tatggttgta ttttcagtgg tcctctgtgt acagttaccc atctacttct 420
atccccataa atagcaaaac tgtttttgat tttcattcct gaattgcatt gagaggttat 480
catcattgtg tactacttag tgataagcat aactggcatg ttattctttt gctaagatgt 540
aataatttct tttttttacc atctgtatct aggtgtttat tcacttactt ttcattttct 600
tagtcattgt cacttgaatt gttttgcttc tctattttat taacttgtgt agcttctgga 660
attctccctc atttcccctg agatctttgg tgctaaactc aaaatagcag tttgaacgct 720
ggcaccaatt agaattctaa gtaatttttt ctaccaataa actctgtact atatccctgt 780
ataccaggtt tattattata atttcttttg catccaaatc tcactgtaat ctttttcttg 840
tatacagatg gtatgtatct tgatcttatt ttttttocag attgcttttc cttagagttt 900
tcattttatt gactttatgt ttgcagatc tgatgactgt ttattgaact ttgagcctgc 960
cttgtggtgg gacagtttgc ttttatactt acatcatatg actctgggtt acaaattaat 1020
tttcttagta agcaaaagaa actacatctt aggtgaactt gtttttctt ttttagtata 1080
aataatctgg cactctgcta tttaaaattt cttgaactag atatccaaac tacaagcaaa 1140
tgaaatattt ctgggtcagc attatgttct aggaaactat gactgggctt cgtaatgtat 1200
tagattagga ggctgtaact tagtccttgc ctttgactgt gtaacattac tcgagtcatt 1260
agtcaaattg ttggattttt ttccagatag ttctctcatt tgtacacaag aaaagccaga 1320
tactttacat ctctgggttg ttgtagggat catctgcgag tatgtgaata gtactttgaa 1380
aatataaagt ggccgggtgc ggtggctcat gcttgaatc ccagcacttt gggaggccta 1440
gatgggagga tgacttgaga tcaggagtgc aaggccagcc tgacaaacat gatgaaacct 1500
cgtctctccc 1510

```

&lt;210&gt; 130

&lt;211&gt; 1496

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 130

```

gggcagatgg gccagttca aagggtctga gaacacaacg gtactgcagg atgagctttg 60
gaactgctgc accgtctctt ccaactgcatt ctgcatacgg gccctaaaca agtcccaagc 120
cttcccagat tcaagacatg ggggatgggc tgtatctctt atggagagag tcacatagca 180
aggggtgtggc tctagggagg aatgaagagt ggtcaagtgc agcctgccat gctggctcct 240
tcaccagcct gtcagttata tgagccaatg ggctgaatca tagtcatctt tctctccaca 300
tgcttgccc gtgaaggatt tgctgcccga gcagagaccg tggaatgaat gtgtgctcca 360
ggcaactctgc cttctctctc ttctttgact tctctaagct cgttctctgc cctgtccac 420
tctgtctctc tccccagga tcatggcatt agtcggatcc ttcccatcat ttcatttta 480
gctccagtat cactctttg agccttccct gactaccctt ccagcattct ctaatcccat 540
cactctgttt tttttatctt ttcttttttt ttgagatgga gtctcactgt gttgcccagg 600
atgaagtgca ggggcacaat ctcggtcac tgcaacctgt gcctcctggg ttcaggtgat 660
tctccggttt cagccaccgg agtagttgtg attacaggca tgtgccacca tgccctggcta 720
atttttgtat ttttagtaga gacagggttt catcatgttg gtctggtgg tttcgaactc 780
ctgacctcag gcaatctgcc caactcagcc tctcagcctc ccaaagttat acaggttttt 840
tttttttttt tttttaaatc ttttcatagc atctgtaact gtttaaaata ttagtgtgac 900
ttctttttct agaatgtaag ctttgggaga gcggtgtcct tgctgtctt gttctctgtt 960
acttctccag ctcccagaat ggtggtggc actcaggggg tgctcaacac acataattgt 1020
caagaacatg ctacatcaag gcctgagtgg ctttgccacg gctcttcttg tgactgcagg 1080
ccttggtgac agcagccacc ccagttccaa gaaatggtct cttgctggcc agcttagcag 1140
gaagaactgg cagcgttcct gttacagcac ttccaggtgg ctgcttttcc ctgagtcatt 1200
gtggcttctc catgtctctc tgttggagtc acaagttgtg gaaattcact taggccaact 1260
tagaccaaga agtgggaatg ttaatagtta aatgtcagtc tgggcaacat agcaagactt 1320
cgtctttaca aaaaattttt aaaaatatta gctggtgcgg tcgtgtgcac ctgtagtcct 1380
acctactcgg ggggctgtgg tgggaggatc gcttgagctc aggagttgga agctgcagtg 1440
aactatgatt gtgcactgc actccagcct ggatgacaga gcaggacctt ttatct 1496

```

&lt;210&gt; 131

&lt;211&gt; 753

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 131

```

caaactagtt gagggatata ctgtttgcat acttacgtag attttaatat ctgttcaaag 60
atattcagtt cctgggtatag agatttttaa atctacgtaa gtatacaaac tagttgaggg 120
atacactggt tgcttttata aaataacttt gattacatga atataataaa ttatgtgcat 180
ataaatgtgt gtctatatgc ttccctttaa atatgtttga aaagatgttt gaaacttgat 240
tatactattt ataattggca cagtactttg aattatgcca gtactacatt gtaaaacaga 300
gttgatattt ttgatattta acaatgctta acactttaaa tgccacttct gaggaatgga 360
cctgggtgtaa cacacttgaa tatgtgtgat gccaaacttt ttaaaatata atataaatta 420
tgcttattta ttattttctt tagtttaatc ttgggtcatgt tttgggtgtg atttttaatt 480
tttttcttaa attaacactt tggcatgaac attactgcag gtttttgatg aatataatga 540
atgtatggaa ttcaattgaa ttgcatgggt ctccggaatt ttttctgtgt gtataaattt 600
ggctgctatt aaccgaagag agaactttct gtgagtagcc atgtgtgttg atcagatata 660
gtttttctga gatcttcaat taatctccct ttaaaaaatga ccaaaacatg tctttcttga 720
attaactttg aataaaagt ttgtatattaa aag

```

&lt;210&gt; 132

&lt;211&gt; 565

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 132

```

ggggtatata gagcagcacg gtctgaggga tggaggccct tcctgctgac acaggaggct 60
ggggaaggtc cgtggctgga gaaggctcgt gccttgccca gaagtgtgtc ttatcaccaa 120
gagatggccc ggtgcactga gcacctactg tatgctagca ctgcggtggc cgtcctgctc 180
agcggctctt ggattagcca tccttggtcg cctgcagggg aggacgagtg ttctcacctg 240
tgtctgcta tggaggggaa ggtgacaagc ttctctgtgt gcacctgtgc ctcaaagtgt 300
tgggaaaggg tggttttccc aggtgggggc ccctgccctg ccccgacctc accctgcctg 360
aggccctgct cagccaccac cctcgatggc cctggtagaa agtgtctccc gacacctccg 420
caccctgcct gtctcccagc ctgagcagcc ctggagggtg cccaaggccc atgcccctgc 480
ccagtgtctg gcacccccag gaagctcaga ggcccccagg cagagccggg gaggcgtgaa 540
ggcatagcca gggcagaagc agaac

```

&lt;210&gt; 133

&lt;211&gt; 1761

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 133

```

ttctgtgcca tggttccac attcgcactc catggcctcc tgtcctggac cccacgtctg 60
caaggaaacc ctaggaccat ggatacctct gtgattcacg ctgagcccaa gtccccacac 120
tggaaaactg ggaaatggcc agctgtgtgt cccaggaaat tcctccctct attcttctt 180
gaagtgcccg agcatgtagg gcaagaagga aggtgaaagc gctgtcccta ggaggaattt 240
ctccttcagg gaagcctcag ttttggccat ttatctaatt gaatcagttt ttacccaat 300
ccccgattt tgtaggataa tctcccttat ctaaagtcaa ctgattatgg actttaatca 360
catctacaaa acacttccat ggcgacagct agatgagtgt ttgaataact gggactgtag 420
ccgtgccaa gttgacacata aaactgacca tcgggcccgg ggcggtggct cagcctgta 480
atcccaacac tttgggagcc cgaggcgggc ggatcacaag gtcaggagtt cgagaccagc 540
ctggccaaca cgggtgaaacc ccgactctac taaaaatata aaaaattagc cgggtgtggt 600
ggcacacacc tgtagtccca gctactcggg aggtctgagg aggagaatcg tttgaacctg 660
ggaggcagag gttgcagtga gccaaagatca cactattgca ctccagcctg ggcgacaggg 720
caagactctg tctcaaaaaa ataaaaaact gaccatctag tccttgtcat ctgggcaccc 780
tcacacatct ccttaaccac acttaatctc caaataagta cgataacata gtcatagtcc 840
cacccaacat gatgcagtta tcttgcatat aactgaagac aactaacctt ttccccaaca 900
gagcccaaca gcagtgggtg agatgtcggc ccatgagcgc acacacaaga ctgagggact 960
gtcggccctc ccagggtgtg tcaacacaac atcacacaca ggtggggggg cctgatagcc 1020
cagcaccat gatacagggc ctaccaatgc ttaaaaccac acccagggag cccacagagg 1080
cactcagtgg gtgggtgggt gatggatata catctatcag gcacagggcg gaggtgggca 1140
ccactgagtt gcactcagca aacacattgg gtatcttgtg cccaaggcct gtatttgttg 1200
agctgatgtt ctagtgagag acagtaaagt tgacaaaagt aaaaatatc agatgggtgag 1260
aaaacagaaa aatgagatca gaagtggaga tgttggggcc aggcacagtg gccaggcct 1320
gtaatcccat cactttggga ggtgcaggca ggcggtggc ttgagcccag gaattcaaga 1380
ccagtccgag caacatggca aaagccctta tctgcaaaaa attcaagaat tagccagggt 1440
tgggtgggtg tgcccagggt cccagggtact cggaggctga gaggtgggag gatgccttga 1500
gcttgagagg ttgaagctgc agtgagctgt gatcgacca ctgcactcca gcttgggtta 1560
tggagaccct gtttttttaa aaaaagaagt ggagggtgtt acaccagcaa aatactcatt 1620

```

```

ttttaagtgt aattaagttg aagatcaaaa aatggaaatg tataattaaa tcatacttag 1680
caaatactaac acatgaaatg taacatctgc atatggagaa tcgtgttact ttattgaaaa 1740
acattaaaag tttgagaact t                                     1761

```

&lt;210&gt; 134

&lt;211&gt; 1502

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 134

```

cctggaaatt gaaacaaagg cagagccacc tagaaccagt gccaaagcaa atccaaaact 60
tggcatatgc caaaatatat tacctctaaa ctctgtagtt tccattcttt catacttcat 120
tagcatatct aggaagtaag atctacttgc agcactttga aaaaaataaa taaatgacat 180
gtagtttttc ttttccaaga ccctaaaagt ttgttcttga agatcagttg tatttatgca 240
tataacatac tcatatatca ttcagatttt tatgttcagt caacttgtgt tagaatatga 300
aggagtaaac ttctcatcaa ctccctggct tgccttctac cttaatgata ttttaaaact 360
actgacaaaag gaaaatttaa agtgtggata ttattagttt aatcaatact cattggattg 420
tacagcgtaa gccagacact gtactaggca tcagagatgc agtgatgagt gtaagtaatc 480
acaagtatgc aaacaatagt gattaagcgt gatttttttt tttaaagcat ggtaaatacc 540
tcatggagat ggtgttaatg taaggtagag aaccctaatt ggcctaagag ttccagggaa 600
ggcttaccag agaaagcgac tttagattca gataaagcat aaataggagt taaatcaaca 660
tgggtgaaaa attgtgccag gcaaagggag cagctatcct aagatctgta ggtgaaggag 720
aaatcactgt gctccagcct ctaccgcatt ctctctgctt ttggacagaa aattaggaat 780
gtgatgagac aagcttcttg gggccactg aattaattcc catacactta ccttattgaa 840
aattctggat aacaagattt atgccatagt ttgattggca atggcttaca ttttaactgt 900
tgacttcttt gcatttaaga gatgttaggc atgattttac atcagcacac tagttaggaa 960
acgaaaggaa aagggactag taaaagagtc caaaagagag gggtagaga aaaggagctt 1020
tacctactcc aagaggggta cagcttcaag ttgataggat taatcaacat tgtcacacat 1080
agttctgggg agttcatagt gagataaaga ctatggactt ggatgtattt taatgaagca 1140
ggttgttagt gggattcttt tgttagtttg tctgatggga atacaagctc cagagacagt 1200
cctactcttt ccttctaate tgggtccat cttaacatgtc atcttttttg tcccaaagtt 1260
tttcacctgt aaaaagaact aatgttagta ccaagctcag cagggtgctgc aatgattaca 1320
tgtgtaagta tatacaaagc agttagaata gtgtctgggt catataaagt gctcaataaa 1380
attattattt aaagtcagat aaatcttctg tcatattcag gacttctgac aggtttatgt 1440
ccatcacgca attatctttc aatagtacag atataattat atgattctcc ccatcacctg 1500
cc                                     1502

```

&lt;210&gt; 135

&lt;211&gt; 1364

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 135

```

ggcagatttg ccttgtactt aaaagtatct ctaaggaaact caaagctcct agggcccaaa 60
gactagacct ctaatagtag taccttggac ttagtggcag gtactaagtg ggagaaggta 120
ccttggcaca aggaatgag ccagaaccaa caaatgaatt catctactta aaaaattaag 180
tctgtttgag acaacttttg atagtattaa aatgttaaat ctaattgtat ttgggaaga 240
aactttggaa agctatctga ttttgttct ctcttttgta actgtaccat tttcatgggt 300
gcctatggtc atcaagtttt acatgctgaa attcttgggt ttggatcact gcagaaacgt 360
gaagagggct ggtgggtggt gattggagat gccaggtcca atagcctcat ctccatcaag 420
aggctgacct tgcagcagaa ggccaagggt agtgtgtcca ctggccctag catttgttct 480
ggcatggggg aagggtgaga atgcttctct tgtccatgct catcttgatt tctgctgtct 540
ctttctaggt gaagtgggac tttgtggccc cagccactgg tgcccacaac tacactctgt 600
acttcatgag tgacgcttac atgggatgtg accaggagta caaattcagc gtggatgtga 660
aagaagctga gacagacagt gattcagatt gagtctgag gcatttactt ttgggtaaag 720
gagagttgag cctgaattag gaatgtgtac attgtaggaa tcctgggtgt ggggaccagg 780
tctgtgggcc tcaggtctgg ccagccaggg ctggtgctgt ccccgccctac ctccacttcc 840
tttcccttgc tcaactctgga tccagtgaca gcagggtgtca tgggtcaagc ataaatcata 900
tatagcattt tcaggcatgt tctgtgtagt tcttttgagt ctgacattct aataaaataa 960
tttgtagaaa ccatttgtct ttgtagtgt tccaaattaa aagttttctt tctccaacct 1020
gagggcacgg ccaaaaagat ctggttattt tttagccagg aacgtgcttg ttaatgagta 1080
tgtctggagg acagacctgc tcattaggtg tgtgtctccc tgtagcctcg tgagttagcc 1140
cagaggaggg tacatgcgac tgtggcctgg cctcagtggt acccacacat cagcactacc 1200
acaagaacca acactgagcc tcggaagcta gatcacaggt taggggttct tctagatggg 1260

```

ggttctgaaa tttgcagtgt ctgctcctgg gaggcagcac cagaaagggc actgaaatgt 1320  
actagctgga tgtgacccag tcttaataaa caggttttct aatc 1364

<210> 136

<211> 1854

<212> DNA

<213> Homo sapiens

<400> 136

cgcagcccg taccggctcc tcctgggctc cctctagcgc cttccccccg gcccgactcc 60  
gctgggtcagc gccaaagtac ttacgcccc gacctgagc ccggaccgct aggcgaggag 120  
gatcagatct ccgctcgaga atctgaaggt gccctggctc tggaggagtt ccgtcccagc 180  
ccgcggtctc ccgacccctc ggtcccatgt ccatgggggc accgcggtcc ctctcctg 240  
ccctggctgc tggcctggcc gttgcccgct cgcccaacat cgtgctgac tttgccgacg 300  
acctcggtta tggggacctg ggctgctatg ggcaccccag ctctaccact cccaacctgg 360  
accagctggc ggcgggaggg ctgcggttca cagacttcta cgtgcctgtg tctctgtgca 420  
caccctctag ggcgcccctc ctgaccggcc ggctcccgtt tcggatgggc atgtaccctg 480  
gcgtcctggg gccagctcc cggggggggc tgccctgga ggaggtgacc gtggccgaag 540  
tcctggctgc ccgaggtac ctacacaggaa tggccggcaa gtggcacctt ggggtggggc 600  
ctgagggggc cttctgccc ccccatcagg gcttccatcg atttctaggc atcccgact 660  
cccacgacca gggcccctgc cagaacctga cctgcttccc gccggccact ccttgcgacg 720  
gtggctgtga ccaggccctg gtccccatcc cactgttggc caacctgtcc gtggaggcgc 780  
agccccctg gctgcccgga ctgagggccc gctacatggc tttcgcccat gacctcatgg 840  
ccgacgccc cgcgcaggat cgcctctct tcctgtacta tgctctcac cacaccact 900  
acctcagtt cagtgggcag agctttgcag agcgttcagg ccgcgggcca tttggggact 960  
ccctgatgga gctggatgca gctgtgggga cctgatgac agccataggg gacctggggc 1020  
tgcttgaaga gacgctggc atcttcaact cagacaatgg acctgagacc atgcgtatgt 1080  
cccaggcggt ctgctccggt ctcttgcggt gtggaaagg aacgacctac gagggcggtg 1140  
tccgagagcc tgccttggcc ttctggccag gtcatatcgc tcccggcgtg acccagcagc 1200  
tggccagctc cctggacctg ctgcctaccc tggcagccct ggctggggcc cactgccc 1260  
atgtcacctt ggatggcttt gacctcagcc cctgctgct gggcacaggc aagagccctc 1320  
ggcagctctt cttctctac ccgtcctacc cagacgaggt ccgtggggtt tttgctgtgc 1380  
ggagtggaaa gtacaaggct cactttctca cccagggtc tgcccacagt gataccactg 1440  
cagacctgc ctgccacgcc tccagctctc tgactgctca tgagcccccg ctgctctatg 1500  
acctgtccaa ggacctgggt gagaactaca acctgctggg ggtgtgtggc ggggccaccc 1560  
cagaggtgct gcaagccctg aaacagcttc agctgtcaa gggccagtta gacgcagctg 1620  
tgaccttcgg ccccgaccag gtggcccggt gcgaggacc cgcctgcag atctgctgtc 1680  
atcctggctg cacccccgc ccagcttgc gccattgccc agatcccat gctgagggc 1740  
ccctcggtg gcctgggcat gtgatggctc ctactggga gcctgtggg gaggtcagg 1800  
tgtctggagg gggtttgtgc ctgataacgt aataacacca gtggagactt gctt 1854

<210> 137

<211> 1501

<212> DNA

<213> Homo sapiens

<400> 137

tgcgcgctgg agcccggtc gagaggacga ggtgccgctg cctggagaat cctccgctgc 60  
cgtcggtcc cggagcccag ccctttccta acccaaccca acctagccca gtcccagccg 120  
ccagcgctg tcctgtcac ggaccccagc gttaccatgc atcctgccgt ctctctatcc 180  
ttaccgacc tcagatgctc cttctgtctc ctggttaact gggtttttac tctgttaaca 240  
actgaaataa caagtcttga tacagagaat atagatgaaa ttttaacaa tgctgatgtt 300  
gctttagtaa atttttatgc tgactggtgt cgtttcagtc agatgttgca tccaattttt 360  
gaggaagctt ccgatgtcat taaggaagaa tttccaaatg aaaatcaagt agtgtttgcc 420  
agagtgtatt gtgatcagca ctctgacata gccagagat acaggataag caaataacca 480  
acctcaaat tgtttcgtaa tgggatgatg atgaagagag aatacagggg tcagcgatca 540  
gtgaaagcat tggcagatta catcaggcaa caaaaaagt accccattca agaaattcgg 600  
gacttagcag aaatcaccac tcttgatcgc agcaaaagaa atatcattgg atattttgag 660  
caaaaggact cggacaacta tagagttttt gaacgagtag cgaatatatt gcatgatgac 720  
tgtgccttcc tttctgcatt tggggatgtt tcaaaaccgg aaagatatag tggcgacaac 780  
ataatctaca aaccaccagg gcattctgct ccggatatgg tgtacttggg agctatgaca 840  
aattttgatg tgacttaca ttggattcaa gataaatgtg ttctcttgt ccgagaaata 900  
acatttgaaa atggagagga attgacagaa gaaggactgc cttttctcat actcttcac 960  
atgaaagaag atacagaaag tttagaaata ttccagaatg aagtagctcg gcgattaata 1020

```

agtgaaaaag gtacaataaa cttttttacat gccgattgtg acaaatttag acatcctctt 1080
ctgcacatac agaaaaactcc agcagattgt cctgtaatcg ctattgacag ctttaggcat 1140
atgtatgtgt ttggagactt caaagatgta ttaattcctt ggaaaaactca agcaattcgt 1200
atttgactta cattctggaa aactgcacag agaattccat catggacctg acccaactga 1260
tacagcccca ggagagcaag cccaagatgt agcaagcagt ccacctgaga gctccttcca 1320
gaaactagca cccagtgaat ataggtatac tctattgagg gatcgagatg agctttaaaa 1380
acttgaaaaa cagtttgtaa gcctttcaac agcagcatca acctacgtgg tggaaatagt 1440
aaacctatat ttccataatt ctatgtgtat ttttattttg aataaacaga aagaaattta 1500
c                                                    1501

```

&lt;210&gt; 138

&lt;211&gt; 1613

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 138

```

ggagtctcgag accagcctgg gcgacaggac gagactagtc tctgcggaga atgtgaagat 60
tggccgagtg tgggtggcgtg cacctgtagt cccagctact cgggaggctg aggtgggagg 120
atcgcttggg cctgggaggt cgaggctgca gtgggctgtg atcgtgccac tgcactccag 180
cctgggcaac agagcgagac cctgtttcaa aaaaaaaaaa acaaagcagt ctgctttgtg 240
cagtggtttc agtaataatc caactgtgaa aacccaactg tgaagactta gggagagaga 300
gctgctccct tagcgggtac tcagcaggca gccggggagt ggtgggcacc tgagagctcc 360
tgatggtacc caggcagact tcagagaagg aagcgcgagg cctgctgcc' tgggatccca 420
gcagtggagc cggctttttg gagcaggagg cactgagggg gtgttcaggc tttcccccca 480
tgcttcccca ttcagggaag gggttgtaca aaagaggaac gcactgtcca gtaacgctgc 540
ggcgccgtgg gcagctctga gcgtggcggg gattggcagc aagtgtgtga gacttggctg 600
tgaacctctg agccagctct caggtcaggg tgcaggtgcc ctacgacac tcagcatccc 660
aggaaaaggg cggcctcgcc ccacctccct cccacggcca cataccacag gtcccagggg 720
tgccctcggg attgaggctg ccttgccctc ctttgtccgc actgtccctg tccccttgtg 780
ccacctgtgc agacttgaga atggagctca ctgtggtgtt catgcccggg cctgtctagc 840
tcctcacccc acgatttgac cagtgccaca ccacgggacc ttgtgtgacc tggggcctgc 900
gtcctctgga aaacagctgt ggagtgggtg gatgaggaca ggtgccttgg aaagcatcag 960
gaccttgtga gcacgaggca gctgccagca ctccacgttc ccgccatgct ctccctaccg 1020
tgtgggcatc cacctggcca gcgcgcctc cgagtgccc ctccctctgg tngctcccgc 1080
gcagcatgcg aaggtgttat ctgcccgcgt cctgcctttt ccccaacacc gcacggagga 1140
tgccacgtgt tcggtggctg ttccggacgt gtgatttgca gggctctact tegtgtccta 1200
ggctggagtg cgggtggcgc atctcagctc actgcagcct cgacctccca agctcagtag 1260
agacggggat tcgctgtgtt gcccaggctg gtcttgaact cctggagtca agcgatctgt 1320
ccaccttggc ctctaaagt gatgggatta caggcacgtt gcccttggcc tcgcaggagt 1380
cggccgtggg ggaggacctg ctgtccgtgc tgggtggcgt ggacgggagg tacgtcagtg 1440
ctcagccctt ggctgggagg cagagccgga ccttcctcgt ggaccccaac ctggacctgt 1500
ccatcaggga gctggtgcac aggatcctcc cagtggccgc cagctactcc gctgtgacca 1560
ggttcattga agagaagtct tccttcgagt acgggcaggg gaaccacgcc ctg 1613

```

&lt;210&gt; 139

&lt;211&gt; 780

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 139

```

gttggtgttt caaaaaaaaa ccttaattgg caaaacatta agggacttga atagaattac 60
acttatcttt ttgtgctgat ttatgtcaat ccatcattct gggtattgat ggaagcaa 120
tgcttctctat gttctctaaa ccttatgtcc ctccatact ccatgagtag cacactggga 180
gaaaacaaaa gcaaaaagat tgtgggaaaa gtatagccat tatctttgag gaaatgtgta 240
ccaaggcaca atcattaaaa ggagttggag gcatcatttg gttgacactg ttgtcattct 300
tgctctgatc attttggacc ttgaagaaat tgggtattct ctccatagaat tagacaaaca 360
aagtgtgttt gaaaaaatg attgttttcc tgccttaaaa aatatattaa cagaaagctt 420
ttataacagg ctgtttccct ctggacaggt attaatctg agtaagaatt ttcagtact 480
acataaggat ttgtgtaact tatgaaggaa gagtccattt ctaatcaaat aattcacctg 540
ttttactagc ttatagtgat ctgatttcag aattttcctg tatctttttt acatacatca 600
gaaaaagaaa tgtttactat atttttggtt ccatttatga ttgtattaag catttgacta 660
taaggaaaac taacaattaa atcaattaga aaagcaacat aaaattaaat gatatttagg 720
aaatcagtta tatgtgagct tgggtattca aatgtcacia ataaaaagca tataaccatt 780

```



<210> 140  
 <211> 796  
 <212> DNA  
 <213> Homo sapiens

<400> 140  
 ccttagaaag cggccttttt cccactcttc ttccagcttg tccctgctcct tctggatatct 60  
 ctccctggagc aaacgttcct gttcctgttg ccatttttcc tgctcgctgc gctcctcttc 120  
 tgggtcccat gcccagaact taaaagggtg cataacaggt gacttctcac tgcttgga 180  
 atccacttga gaattgagat ttggcaaatg tagttgggtg gcttcaggca tttgtccag 240  
 aaatggaaat gtcagcggtg cttcgggttc tggagatttt ggctttacca ccttttgtga 300  
 cagcaccaac tccaccttcc cactcatttc attttctggt ttcttctggt ctttttcttc 360  
 cgacacatca ttcttcagct gggggctgga gggaaattcc acaaaggcca cggtcgggct 420  
 gcatcgagtc acagttgttg taaaatgctg tggttctgat gaggcaagtt ctatattccc 480  
 ttttcttgat ttccaccat cattcttgct ctcttgacta ttcggttccg ttttctcagt 540  
 ggttgctga aaaagagatt tttttccccc gttgaataaa tgattccttt aaaagttcta 600  
 aaaattatctt ttaagcagt aatttttagg tcaacaaagt ggtttggcca tatgaattcc 660  
 ctctntact tcccaggcag cttcatggcg agagcctggt ttggtgagat ggtgaaccgc 720  
 atgggtgtcc tgttctccat gcggttcacc atctctcaa ggcagtcata ggaggtttgg 780  
 tgaggaaacct tagaaa 796

<210> 141  
 <211> 2198  
 <212> DNA  
 <213> Homo sapiens

<400> 141  
 cacagtgggg agcgggcaac tetgaccagt gccggcctgc agcctacatg cggctgagga 60  
 ggctgcggtg ggaattgctg ggactcagga cgcctgggca gagggtgagg ggctgcgct 120  
 ggcggggaag cttcatgta gcctctccca gtgtccgggc tgggtgcttg ggaacaagcc 180  
 tgagggccac aggttaattt cccagccggg gcagccccc ccccgaggc caagcccgag 240  
 ggtcttcagg ttccgggctg agcctgtgtg ctttctcgtc gcaggctcctg aacgaggctg 300  
 tggggggcct gatgtaccac accatcactc tcaccaggga ggacctggag aagttcaaa 360  
 ccctccgcat catcgctcgg attggcagtg gttttgacaa catcgacatc aagtcggccg 420  
 gggatttagg cattgcgctc tgcaacgtgc ccgcgccgtc tgtggaggag acggccgact 480  
 cgacgctgtg ccacatcctg aacctgtacc ggcgggcccac ctggctgcac caggcgctgc 540  
 gggaggggcac acgagtcacg agcgtcgagc agatcccgga ggtggcgctc ggcgctgcca 600  
 ggatccgctg ggagaccttg ggcatcatcg gacttggctg cgtggggcag gcagtggcg 660  
 tgccgggcaa ggcttcggc ttcaacgtgc tcttctacga cccttacttg tccgatggcg 720  
 tggagcgggc gctggggctg catcggtgca gcacctgca ggacctgctc ttccacagcg 780  
 actgcgtgac cctgcactgc ggctcaacg agcacaacca ccacctcatc aacgacttca 840  
 ccgtcaagca gatgagacaa ggggccttcc tgggtgaacac agcccggggtt ggcctggtg 900  
 atgagaaggc gctggcccag gccctgaagg agggccggtat ccgcggcgcg gccctggatg 960  
 tgcacgagtc ggaacccttc agctttagcc agggccctct gaaggatgca cccaacctca 1020  
 tctgcacccc ccatgtgca tggtagcagc agcaggcatc catcgagatg cgagaggag 1080  
 cggcacggga gatccgcaga gccatcacag gccggatccc agacagcctg aagaactgtg 1140  
 tcaacaagga ccatctgaca gccgccaccc actgggcccag catggacccc gccgtcgtgc 1200  
 accctgagct caatggggct gcctataggt accctccggg cgtggtgggc gtggccccc 1260  
 ctggcatccc agctgctgtg gaaggtatcg tcccagcgc catgtccctg tcccacggcc 1320  
 tgccccctgt ggcccacccg ccccacgccc cttctcctgg ccaaaccgtc aagcccagg 1380  
 cggatagaga ccacgccagt gaccagttgt agcccgggag gagctctoca gcctcgccgc 1440  
 ctgggcagag ggcccggaaa ccctcggacc agagtgtgtg gaggaggcat ctgtgtggtg 1500  
 gccctggcac tgcagagact ggtccgggct gtcaggaggc gggagggggc agcgtggggc 1560  
 ctggtgtcgc ttgtcgtcgt ccgtcctgtg ggcgctctgc cctgtgtcct tcgcttct 1620  
 cgttaagcag aagaagtcag tagttattct cccatgaacg ttcttgtctg tgtacagttt 1680  
 ttagaacatt acaaaggatc tgtttgctta gctgtcaaca aaaagaaaac ctgaaggagc 1740  
 atttggaagt caatttgagg tttttttttt tgggtttttt ttttttgtat gttggaacgt 1800  
 gcccagaat gaggcagttg gcaaacttct caggacaatg aatccttccc gtttttcttt 1860  
 ttatgccaca cagtgcattg tttttctac ctgctgtctt tatttttaga ataatttaga 1920  
 aaaacaaaac aaaggctgtt tttcctaatt ttggcatgaa cccccccttg ttccaaatga 1980  
 agacggcatc acgaagcagc tccaaaagga aaagcctggg cgggtgccag cgtgcccgtc 2040  
 gcccatcgac gctctgcctg gggacgtgga ggggtggcag gtccccgcct gcaccagtcg 2100  
 cgtcctgctg atgtggtagg ctagcaatat tttggttaaa atcatgtttg tgactgtaac 2160  
 catttgtatg aattatttta aagaaataaa aatcctgg 2198

<210> 142  
 <211> 2576  
 <212> DNA  
 <213> Homo sapiens

<400> 142  
 attcattatg gagaaagcat caggactgtt gagtaactcc tcctttactt ttttcctgct 60  
 ggctacagca tggggtgccc tataggcaca agcccagctg aagaacagaa tggagggtctc 120  
 tgggaggagg cagctcactg gagagcctac attccttaca caagtgccta aagagagtga 180  
 tgctaaact ccactgccc tgtccattgc cttcatatac agtctacttc gtgttctgtc 240  
 accctttggg caggggagtt ctccctggac agtgggctct gcatgttctc cacttgata 300  
 cttttgggg ctaggatcag ggcactattc ctggagggtc cagtcattca ccagcatttg 360  
 caaatgtcca tagggagcag gtggcagcct ctactcccag caacaagttt gtgttctctc 420  
 cttttctctc tttgcctcac tctctccagt tggttttcag ctggggcttg aaatgcattt 480  
 ttagcccttt gacgtggctt atgccattca agaaataaaa agcaagagaa tcagctttgg 540  
 gcaatgacaa gaaatgagtt ctactctga tttttttgta aaaagataat ttttgagact 600  
 tgaaaaatac cccgacctg agattattcc tgtttgaaag gtggtgcatg cagatggaga 660  
 agtgggtgtg gcagcaagct ttggctcatg tggatttggg ttaagtggg cttcttacc 720  
 aagctcaag gaagtgttg ggggaccccc agcctcatcc tcttagttgg gtctctgtt 780  
 ccctttgtac cactgttttg ccttcctttt cctctctctc ctttgccctg cttcctttcc 840  
 cttttctctc attcactctg cttgcttgcct ggccggcctg cctgcctgcc tgcctgcctg 900  
 cctgcctgct tgcctatgtg atgatgaaat cctgcatgg ctgcaatgat cccactgta 960  
 gctggcaggg tcaggcttag ctccctgact gcagaagacc aagaacctgt tccccagcc 1020  
 cagagatgtc cacctgggct ggactgccct caagcttata ctagagaaga gcaactgacc 1080  
 tgcccaactt gtgtgaagtc aggagggttt ctggcatttt ccacacctgt ccactccttg 1140  
 gagctgggtt ctctcattgc tttttctaaa tctggttctt tttctcttta cctggggcct 1200  
 ggcttttctg agattgtctt aggggtgagc tatttgggta tcctgggttt gagtgttagg 1260  
 ggatggacat aaaggaaaaa gagtgatgag aagagaatgg agagaatttg aataaaaagt 1320  
 gggaaaggag agcactgttc tttgattgtt tatccagtc aacctgatcc attagggtac 1380  
 gaggtgctac actggcctcc agggataagc ctggggctac tgttgctggg aacttaggct 1440  
 taacataaag ccgaagaagg tacctagaaa tttgaaact ccctaaaaag ctctaatgc 1500  
 ccactgcta gatagcttct ctgtggcctc ctatttagct aagcagcagt gtttttggat 1560  
 actttttttt tctgtttgtg aataaggcca gcactcaaga tgggcagcca aggggtgact 1620  
 gactattagc tggcccatag gatattctgta aggctgggtg gacagttttg gacctggaat 1680  
 catgtgtaac taacaaggtt ggacgtttct tccccatcag ggtagaaaaa tcatctcaa 1740  
 ctaggcaaaa ggcagttttg gaaactacat tgggggacgt tttttttatt tatatatggg 1800  
 gcctaggcca atccaggatg gtactgtgaa taccttctct cttaaaatct gatcatggca 1860  
 gggatatgca gggcactttt tactatttgg ccttctaagc agattgggaa ggaggtattt 1920  
 tctggttttc gctttctcc gacttaatag gacttgctct ctccctgggc agggagagag 1980  
 gctgggttgg tgctctccct tactctactc atactgactt agagcctctg gctgctgtt 2040  
 gggcatccaa gaaaggagg ggaaggaatg agctaaaaac aaaacagaat gaggtgggaa 2100  
 agggagattt tcttctttac agaggaataa aggaaccctt ccaagaattg tgcaagttaa 2160  
 gacatttgtt gaatgcactg agtcccttgg tgtagttagc ataaggaaaa atgaaattac 2220  
 tttcctgtgc acacagtcca gcctaatttg tatgtgatgt tgcaacttagc agccatgtgg 2280  
 tgggcatgtg tgactactct ggttttctac ttagtttcta aactttttat ccctctcaag 2340  
 tccagcatgg atgggaaat gtctctggat cccacagct gtgtacttgt ttgcatttgt 2400  
 tcccttttga gatttgtgtt tgtgtcctgc tttgagctgt acctgtcca gtccatttgt 2460  
 aaattatccc agcagctgta atgtacagtt ccttctgaag caagcaacat cagcagcagc 2520  
 agcagcagca gcacaattct gtgttttata aagacaacag tggcttctat ttctag 2576

<210> 143  
 <211> 2229  
 <212> DNA  
 <213> Homo sapiens

<400> 143  
 cacacttaaa tttgtgctg atatagggtt tattctcaag aagtgttgtt aaatgattga 60  
 aagccgttcc ctaggatgat atgcgtacat ttagtcatca gatttcaaga caccacaaca 120  
 tacagtgttg caaaaataaa tccgtcgctt attctgagat agacataata ataggcagca 180  
 gatcctgcct attctcccca tgcagtggag gataagacgc actgggaggg agacagtgtt 240  
 acagagtgtt gctgtcttca gccctgtcag taactacctg agtcaactttg agaagtcctt 300  
 taacctatct gggccttggt tttcccagcc ttaaaatgag atgttgggtca aggtttgatt 360  
 cagttctctg cattgagcac ctgctgtgtg caagccacgg tgctaggatt ctctacgtgt 420

```

ctcttctaag gcagccactg tgggtgttttg tatgtatgtt tgttttggca tggggccacac 480
tgagttgatt gtgttttggt tatatgtctt tctcctggct tagttcagtg ccttgtacaa 540
agtaagtcc tgcacacatt tgactctccc tttttctaaa ccgagggctc cttgtgagta 600
tcacgtcgcc atcctctgta tctcctgtgt ctatcacagt tgttggtaga taggaggtat 660
gtaggaaata tgaaaatgtg agttgttctg ccagaatccc cagaccctgc ttggagaaca 720
agcctagctt gttgagggcc tagctgcacg ttccctggcc cacttatgga gttgggggac 780
tcaaatgcat tggattataa atcaatggag acagcaattc tggaccacag ccttgacact 840
agaggattgt tttctcccaa acagatagta gtcatatatt catttcaaac agcacagtgg 900
agcggagaaa gacttggtac cagttaagat cagattcatt ttaaccatga aaatgaatta 960
tagatgtatc cctgcattca ggtgtttaaa aacatttaag tgttttttca taacttcttt 1020
tggttttccc acacttctga gtttatgtgc caggactagt aactagaaat tttagggata 1080
ttgatttagc tcagtgaag atatttttta ttgtaagagc aactccctac cagactgcat 1140
taggaagccc tgaattctgt gtcaagccaa ggctaaatgt ccactctcca gggaacatga 1200
agaatcaatg cctgtgtggg agatgaggtg ctattagagc acctgaaaag tcctttgctt 1260
ttgatttggt catcaaatag ttattgagca ccggttatag accagcgtcc atgctgggct 1320
ctgggaatat agcagogaac aaagagaaat ggcaccttcc ctcttggaat ttatagacta 1380
gagctgagct gtacgtagta gccacatgtg gctattgaaa ttaattagat 1440
tgaaatacca ttaaaaattc agcttctcgg tcatgctagc cacaaatgct ctgtaggcac 1500
gtgtggctag tgactgccct acggctcgga tgggcagttg tagagtgttt ctgtaatctc 1560
aggaggaaact cttaggcagg ctgatcatag agctaagatt ctgtgtttct agaccgcaca 1620
tttatgatta gcatttcatg ttggaggcaa ctgaggcaca gaaaagccat ttgtttaaga 1680
ctgagctagg aacaggctctc ttatctttga gtgtggtctc tctctcctg aggtgaggtg 1740
gggcaactga gagtatagtc ttgtcactca ggctgcctgg gttcaaatcc tggctttgct 1800
acttcttaga tttaggtctt agggcaagtc actgcctgtt gctcagttg tatcacctgt 1860
gaaatggagg aagtaatagc acctacctca caggattgca gggaggatta gatgaccag 1920
tcattcaagt ctttagaact atgggctggg cctggtggct cacacctgta atcccagcac 1980
tttgggaggt cgaggtggga gagtcagttg agcccaggag ttcgagacca gcctgggcaa 2040
catggggaga ccccatctc tacaaaaact tgaaaaatta gctgggtgtg gtggtgcaag 2100
cctgtagtcc cagctacttg gaaggctgag gtgggaggat ctcttgagcc tgggaggttg 2160
agcctgcagt gagccaagat cacagtacta taccactcca gcctgggcaa cagagcaaga 2220
ctccaacac 2229

```

&lt;210&gt; 144

&lt;211&gt; 794

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 144

```

gtataacaca cccagtgagg tctctggagc cgcggtgcgg gaagcgggga cccgggtttg 60
aatcctgccc ctctggtgtg gtgcggcctc ttcccacaga cttttggcct cagtgttccc 120
cgcctgggaa gtggggactg gccctggtac ctggctccag agctgcaccc agaggcgatc 180
agcccgggtgc gggaaacgggg cggggtggcc gcaactacgg gccacggatc ctgaccgcgc 240
ctgcccacga tgactatcca catcctcatt ctgctgttgc tctctgcctt ctcgcgcca 300
ggggacctgg aactgcagc caggcgaggc cagcaccagg tccccagca ccgcgggcac 360
gtctgttacc tgggcgtatg ccggaccac cgcctggcgg agatcatata ctggattcgc 420
tgtctccacc aaggagccct cggggaaggc cagccacgag cccagggacc cctacagcta 480
tgggcgcgcg cgtggcgcg aggcggaagc ccggtcggg tcccaggatt ccggcctgca 540
gctgaggggg tagcgcagtg cccagctcgc tgggtgacct cgggcacggc tcgtccctc 600
ctcggttca gtttgctat ctgtatgttg gagcttctac tccacatttc ttctcccta 660
actccagccc ctgaaacctt cttcccagc cctcccgg gctgcgacta ggttgacct 720
agaagcacac gggaccaggc tgggcgaaga acactgacgc ccagagccga ataaacaaga 780
gttccgtttg taag 794

```

&lt;210&gt; 145

&lt;211&gt; 1216

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 145

```

agaaaaccac ctggagcccc cagaactggc agacacctgc ctgatgctgc catgggcccc 60
cagctccttg gctatgtggt cctttgcctt ctaggagcag gccccctgga agcccaagt 120
accagaacc caagatacct catcacagt actggaaga agttaacagt gacttgttct 180
cagaatatga accatgagta tatgtcctgg tatcgacaag acccagggct gggcttaagg 240
cagatctact attcaatgaa tgttgagggt actgataagg gagatgttcc tgaagggtac 300

```

```

aaagtctctc gaaaagagaa gaggaatttc cccctgatcc tggagtcgcc cagccccaac 360
cagacctctc tgtacttctg tgccagcagt tttagccgtc ccgggacggg tttgaacact 420
gaagctttct ttggacaagg caccagactc acagttgtag aggacctgaa caaggtgttc 480
cccccaggg tcgctgtgtt tgagccatca gaagcagaga tctccacac caaaaaggcc 540
aactgggtgt gcctggccac aggtctcttc cctgaccacg tggagctgag ctggtgggtg 600
aatgggaagg aggtgcacag tggggtcagc acggaccgcg agccctcaa ggagcagccc 660
gccctcaatg actccagata ctgcctgagc agccgcctga gggctctcggc caccttctgg 720
cagaaccccc gcaaccactt ccgctgtcaa gtccagttct acgggctctc ggagaatgac 780
gagtggagccc aggatagggc caaaccgcgc accagatcg tcagcgccga ggccctgggt 840
agagcagact gtggctttac ctcggtgtcc taccagcaag gggctctgtc tgccaccatc 900
ctctatgaga tctgtctagg gaaggccacc ctgtatgctg tgctggtcag cgcccttgtg 960
ttgatggcca tggtaagag aaaggatttc tgaaggcagc cctggaagtg gagttaggag 1020
cttctaaccg gtcattggtt caatacacat tcttcttttg ccagcgcttc tgaagagctg 1080
ctctcacctc tctgcatccc aatagatata ccctatgtg catgcacacc tgcacactca 1140
cggctgaaat ctccctaacc cagggggacc ttagcatgcc taagtgacta aaccaattaa 1200
aaatgttttg gtcttg 1216

```

&lt;210&gt; 146

&lt;211&gt; 962

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 146

```

ctgtgaggtg ggcacagatg gtctgtctgg caccatcgctg gacgccacct gtgacgttgc 60
ctgcttgatg ttgatggca gtgacccaaa gtcccttgca cattgtgcca gcgtctacaa 120
gcaccattac atggacgggc agacccctcg cctctttgtc tctccaagg ccgacctgcc 180
gaaggtgtcg cgtgtcttgg ccatcacccg ccgagttttg ccgcaagcac cggctacccg 240
ctcccggtgc gtctctctgt gctggccagc cgagcccagc accaccatct taccagctc 300
gcaccatggc cgcttccaca tttggtccac gcagagctgc atccctcttc cttctggtc 360
cgggggctgc ttgggggtgt cggggccgccc gtggccgcag tctcagctt ctactctac 420
agggctcctg tgaagagcca gtgagccccc tggtaaccaa gccccctccc ctgacctggg 480
tgtgcctcgc tgcctgggct ctgcaggggc agcacagctg ggggtgcaggc caggctgcca 540
ctccgggaac gcctttgcgc cgggactttt tgtttctgaa ggcagtcgat ctgcagcggg 600
gccttatgct gccatgcact gccctggtc ctgccggacc cccaggggtg gccgtggcag 660
gtggctgagc aggagctccc aagtgccggc caccgctgtc agggattgcc caccctggg 720
catcatgtgt gtggggcccg ggagcacagg tgtgggagct ggtgaccca gaccagaat 780
tctcagggtc ctacccccc ttctgggtcc tagtgggcca gtgggtatga ggagggtgg 840
aaggcagagc tttagggcaa aagcaggcgt tgggggggtc cccctcaagt ttggagcgt 900
ttcctgtggt gtagcagagg accggagggt gggttcctga ttaaacttca ctgtgtgtt 960
tc 962

```

&lt;210&gt; 147

&lt;211&gt; 1229

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 147

```

aaagacttcc tgcgatgaga acagaggcac aggtgccggc cctgcagccc ccagaacctg 60
gactgtaggg ggccatggg caccggaccc tggctcctgc ctgggtgctg ctgacctgt 120
gtgtcactgc ggggaccccg gaggtgtggg ttcaagttcg gatggaggcc accgagctct 180
cgtccttcac catcogttgt gggttcctgg ggtctggctc catctccctg gtgactgtga 240
gctggggggg ccccgacggt gctgggggga ccacgctggc tgtgttgca ccagaacctg 300
gcatccggca atggggccct gctcgccagg cccgctggga aaccagagc agcatctctc 360
tcatcctgga aggtcttggg gccagcagcc cctgcgcca caccaccttc tgcgtcaagt 420
ttgcgtcctt ccctgagggc tctggggagg cctgtgggag cctcccgccc agctcagacc 480
cagggctctc tgcccgcgc actcctgccc ccattctgcg ggcagacctg gccgggatct 540
tgggggtctc aggagtctc ctctttggct gtgtctacct ccttcatctg ctgcgccgac 600
ataagcaccg ccctgcccct aggtccagc cgtcccgac cagccccag gcaccagag 660
cacgagcatg ggcaccaagc caggctcctc aggtgtctct tcacgtccct tatgccacta 720
tcaacaccag ctgcccggca gctactttgg acacagctca ccccatggg gggccgtct 780
gggtggcgct actccccacc cagctgcac accggcccca gggccctgcc gctggggcct 840
ccacacccat ccctgcacgt ggcagctttg tctctgttga gaatggactc tacgtcagg 900
caggggagag gcctcctcac actggtcccg gcctcactct ttccctgac cctcgggggc 960
ccagggccat ggaaggaccc ttaggagttc gatgagagag accatgaggc cactgggctt 1020

```

```

tccccctccc aggcctcctg ggtgtcaccc ccttacttta attcttgggc ctccaataag 1080
tgtcccatag gtgtctggcc aggccacact gctgcggatg tggctctgtg gcgtgtgtgg 1140
gcacaggtgt gagtgtgtga gtgacagtta cccatttca gtcatttcct gctgcaacta 1200
agtcaagcaa cacaagtttc tctgatgtc 1229

```

```

<210> 148
<211> 1389
<212> DNA
<213> Homo sapiens

```

```

<400> 148
ctggagcctg ccgggagagt ggtggcatct gagaggctgg ncgtggactg tggttggggg 60
aggtgggagc tgttttaacc gtgtgcccc tctcctgtgc cggcgtgggc atccccggg 120
gcagtggaac gcgggcgctc ctccagcttc cgagtccagc cagcctgggc gggggcgcc 180
gccccgaga caccgagga gtccgttcct ccctggttac gtggactgag gagctggtct 240
cttgtggctc agcgcgtgc ggaggttgaa gcgtacctgc ggaggtcgca ccagggcgtg 300
aggaggagga ggaaggcat gagccgagct tgaggaatcc gtgctccaaa ctctacactc 360
aagggtggcc cttgggtagg gtgaagatcc cctgtcttta tctagtctcc acaccttgg 420
gtgggttact ggggtgcagga tgaactgtcg ctggaggtg ctggaggtg cggtggagg 480
gcggcaggtg gaggaggcca tgcctggctgt gctgcacacg gtgctctctg accgcagcac 540
aggcaagttc cactacaaga aggaggcac ctactccatt ggcaccgtgg gcaccagga 600
tgttgactgt gacttcatcg acttcaacta tgtgcgtgtc tcttctgagg aactggatcg 660
tgccctgcgc aaggttgttg gggagttcaa ggatgcactg cgcaactctg gtggcgatgg 720
gctggggcag atgtccttgg agttctacca gaagaagaag tctcgtctgg cattctcaga 780
cgagtgcac ccattgggaag tgtggacggg caaggtgcac gtggtagccc tggccacgga 840
gcaggagcgg cagatctgcc gggagaaggt ggggtagaaa ctctgcgaga agatcatcaa 900
catcgtggag gtgatgaatc ggcattgagta cttgcccaag atgccacac agtcggaggt 960
ggataacgtg tttgacacag gcttgccgga cgtgcagccc tacctgtaca agatctcctt 1020
ccagatcact gatgccctgg gcacctcagt caccaccacc atgcgcaggg tcatcaaaga 1080
cacccttggc ctctgagcgt cgctggatct ctgggagctc cttgatggct ccagacctt 1140
ggcttttggg aattgcactt ttgggccttt gggctctgga acctgctctg ggtcattgg 1200
gagacttggg aggggcagcc ccgctggct tcttggtttt gtggttgcca gcctcagtc 1260
atccttttaa tctttgctga tggttcagtc ctgcctctac tgtctctcca tagccctgg 1320
ggggtcccc tctttctcc actgtacaga agagccacca ctgggatggg gaataaagt 1380
gagaacatg 1389

```

```

<210> 149
<211> 676
<212> DNA
<213> Homo sapiens

```

```

<400> 149
cctgggagga agccgactag gcgaattcac ttactgaccg gcctgggctg ctctgagaca 60
tggaggaaagc cagtgaaggt ggaggaaatg atcgtgtgcg gaacctgcaa agtgaggtg 120
agggagttaa gaatattatg acccagaatg tggagcggat cctggcccg ggggaaaact 180
tggaacatct ccgcaacaag acagaggatc tggaaagcac atctgagcac ttcaagaca 240
catcgcagaa ggtggctcgg aaattctggg ggaagaacgt gaagatgatt gtccttatct 300
gcgtgattgt ttttatcatc atcctcttca ttgtgtcttt tgccactggg gccttctctt 360
aagtaacagg gaacctctcc cacctgccct tcttttcagg gacaacctc cataaatgtg 420
tgccaagagg gtctccttcc ctgtcttcc ctacagagaa tgctgctcgg tctcctacc 480
cctcttccc aggccttgc gccacgttgt atgcccaga aggtacctg gtcccccgga 540
aggagagaaa aaagagagat ggactgtggc tgcatttctt gggtccttag agtgggctgg 600
agagacctag agggccagc atgtggctgg gaaactgttg gtggccagt ggtaataaag 660
acctttcagt atccct 676

```

```

<210> 150
<211> 1163
<212> DNA
<213> Homo sapiens

```

```

<400> 150
cggcggcttt cttgtgttgg ccagcgggtg tggggagctg taccgccgga aacctcgcag 60
ccgtccctg cagtccaccg gccaggtgtt cctgggtatc tacctcatct gtgtggccta 120
ctcactgcag cacagcaagg aggaccggct ggcgtatctg aacctctcc caggagggga 180

```

```

gctgatgac cagctgttct tcgtgctgta tggcatcctg gccctggcct ttctgtcagg 240
ctactacgtg accctogetg cccagatcct ggctgtactg ctgccccctg tcatgtgtct 300
cattgatggc aatgttgctt actggcacaa cacgcggcgt gttgagttct ggaaccagat 360
gaagctcctt ggagagagtg tgggcatctt cggaaactgt gtcatcctgg ccactgatgg 420
ctgagtttta tggcaagagg ctgagatggg cacagggagc cactgagggt caccctgcct 480
tcctccttgc tggcccagct gctgtttatt tatgtctttt ggtctgtttg tttgatcttt 540
tgctttttta aaattgtttt ttgcagttaa gaggcagctc atttgtccaa atttctgggc 600
tcagcgtctg ggagggcagg agccctggca ctaatgtctg acaggttttt ttctgtttag 660
gagagctgag gccagctgcc cactgagctc cctgtccctg agaaggagat atggcagggc 720
tgggatgcgg ctactgagag tgggagagtg ggagacagag gaaggaagat ggagattgga 780
agtgaagcaa tbtgaaaaat tcctccttga acctggcaga tgcagctagg ctctgcagtg 840
ctgtttggag actgtgagag ggagtgtgtg tgttgacaca tgtggatcag gccagggaag 900
ggcacagggg ctgagcacta cagaagtcac atgggttctc agggatgcc aggggcagaa 960
acagtaccgg ctctctgtca ctacacctga gagtagagca gacctgttc tgctctgggc 1020
tgtgaagggg tggagcaggc agtggccagc tttgcccttc ctgctgtctc tgtttctagc 1080
tccatggttg gcttgggtgg ggtggagtgc cctcccaaac accagaccac acagtcctcc 1140
aaaaataaac attttatata gac 1163

```

&lt;210&gt; 151

&lt;211&gt; 1044

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 151

```

gtggctgtaa atggttaaacc catgctagga gttatacata agccattttc cgaatataca 60
gcttgggcaa tggtagatgg tggttcaaat gtgaaagccc gctcttctta caatgagaag 120
acccaagga tcgttgtgtc tcgttcccat tcagggatgg tcaaacaggt cgctcttcag 180
acttttgaa accagactac aattatccca gctggtgggt ctggttataa agtttttagc 240
cttttgatg tgctgataa gagtcaagaa aaagctgatt tatacatcca tgtgacatac 300
atcaaaaagt gggatatatg tgctggtaat gccatcttaa gccctagggg ggcataatgac 360
tacctgagt ggtgaagaaa tcagttacac tggttcagac ggcattgaag ggggactcct 420
tgctagcatc agaatgaacc accaggccct ggtcagaaaa ctcccagatc tagaaaaagc 480
aggacataaa tgagcataac tgattacagg gtacagtctc tcacagctga aatggtttagc 540
ctgagatgct ggaagcttca aaggattggt ggagactatg catggttaag gccatcccga 600
actttttaa gtatttatga agcatcagag acttattttc cctgtaatag aatgcaaaat 660
cagggaaaat ggttgctttt gtgtctcaag tattgtcttt atttttgaga ctattttcat 720
acagttgtca tacacaaggc gcatatata atttgtgaat taaaatctgt agctgagtct 780
acattgttat gagtaccat tttcacacaa catcatgaat ctccactgtt agtactttca 840
tatagaattc ggttgaagga aagattgatt tttgtgtaga tgtttaatat aactttacaa 900
ctatatctca ttgaaaataa agtcattggg gatttttacc tctaatttgg atggaaagca 960
caagaagcca cacattcatt aatatgcaac aaatgttgta tttatgttac tgaatatttc 1020
tatggattaa aatagaaaaa gttt 1044

```

&lt;210&gt; 152

&lt;211&gt; 1072

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 152

```

aaagatttca ctgagtattt tagatactag tgcaataaaa gatagaaaat cttgatcata 60
atgtcttaag tttgggaact gtgatattaa gaaaagaaat tcccttctag aggtgctggc 120
caaaaagcct tttgggctaa cttaagtatt aaatttata atttaaataa ttatatttta 180
agttgtagag gattttccca aggattttat gcttacttga atgttctttg aatgttcaga 240
tgcatatcct aactggatgc ttctcaaggc cttactgcat atttgtgttg catatttatg 300
ttagtgcac cagggccatt tgtagtttgg gcaaccgaat gcctaattgg aaaaaaggca 360
ttgtggtttc ccctatgac taaattgtta cattttacca ttccattccg aagttggttt 420
tactttatta aatgaagatt tagttttcat atcgatata tagctgtata gatttcaaaa 480
ttaggttgtt aatttgtgtc acttactatt tttgtgttgg taatgcttta aatgcatact 540
taaaaatgaa gtactgttat ctaagctact gtgtttagaa aatgttaaga atgagcagaa 600
attttttatg aaaagtataa acggaagaag agataagata ctgcgaatag gccctcaaac 660
ttaaaaaaga aaaaactttg ccagttttta ggacatattt tgattctttc agtattctta 720
acaccttttt aaacaaagtt cttgatagta cccactatta ttgggtttgt tttatgccat 780
tattgattct tgatattcaa gcattttaca tgtagcatat ttgattttct tttttcttcc 840
tttttttggc atcatataca tttcatttga aatgcatatt gttcttgaag tactttgttt 900

```

```

ttagcataaa tgttgtgcat tttatcttag tgtttggatg aaaacatttg tgttgttttag 960
ctttcatttg ctttgtatat tgataatgta cctttatttt ccagtatgcc tacattttgt 1020
attgcacata aatttatttt aagcggaaaa aaaaaaaaaa aaaaaaaaaa at 1072

```

<210> 153  
 <211> 1121  
 <212> DNA  
 <213> Homo sapiens

```

<400> 153
gtggcttctg cctgcgccag tttccccgct ccctcctgga gaggcaccag aaagaggaat 60
gccaggacag ggtaaccacag tgcaagtaca aacgcacggt ctgcccattg cacggcccct 120
tccatgagct gacgggtgcac gaggctgctg gcgccacccc gaccaagaca ggagtgagc 180
tgatggagat cctggatggg atggaccaga gccaccgcaa ggagatgcag ctgtacaaca 240
gcatcttcag cctgctcagc ttcgagaaga ttggctacac agagggtccag ttccggccgt 300
accgcacaga cgacttcac acgcgcctgt actatgagac gccaggttc acagtgtctga 360
accagacgtg ggtcctgaag gctcagatca acgactcgga gcgtaacccc aacctgtcct 420
gcaagcgtac gctctccttc cagctcctcc tcaagagcaa ggtcacggca ccgctggagt 480
gctccttcct gctgctcaag ggccccctac acgacgtgag gatcagcccc gtcatctacc 540
actttgtctt caccaacgag agcaacgaga cggactacgt gccactgcca tcattgactc 600
cgtggagtgc aacaagctgc tggctgcaa gaacatcaac ctgcggtctt tcctgttcca 660
gatacagaag tagggcgagg cctcaggatg tccgaggagc ccacggcggt catcccagca 720
ccgctgccct gtccacctgg ctggcagctg cttcacagga ctatctgac actttagcaa 780
aggaggagaa caaacgaagc caacacaggg caagtctgca tgcgtgcgag acggggcccc 840
ggcctccggc tcaccccccc gaccctcctt tccccctctt ccgaggggcg ccagaggctt 900
gggctgaccc gaagaggaga cgggtgcaca ggcccccgga ggctaagaga cgggtggcagc 960
aaggaggcgg agaggcacag cgaccctgcc ccagcccttc tgtgcagtca ggcggcggtg 1020
ctgctccatc cctgcgggtt ccggcggggc gcgggggctt tgetgacatc agacgggata 1080
tccgaatatc tgatagcaat taaaaggcag cttgtttctg t 1121

```

<210> 154  
 <211> 722  
 <212> DNA  
 <213> Homo sapiens

```

<400> 154
cgcttttttc ctaaagacag aaggtttttg gtctgttttt tcagtcggat cttctcttct 60
ctgggagggt ttggaatgat gaaagcatgt accctccacc ctttccctgg ccccctaattg 120
gggcctgggc cctttcccaa cccctcctag gatgtgcggg cagtgtgctg gcgcctcaca 180
gccagcgggg ctgcccattc acgcagagct ctctgagcgg gaggtggaag aaaggatggc 240
tctggttgcc acagagctgg gacttcatgt tcttctagag agggccacaa gagggccaca 300
ggggtggcgg ggagtgtgca gctgatgcct gctgagaggg aggaattgtg ccagttagtg 360
acagtcatga gggagtgtct cttcttgggg aggaagaag gtagagcctt tctgtctgaa 420
tgaaaggcca aggtacagt acaggggccc gccccagcca ggggtgtaat gccacgtag 480
tgggggcctc tggcagatcc tgcattccaa ggtcactgga ctgtacgttt ttatggttgt 540
gggaagggtg ggtggcttta gaattaaggg cttgttaggc tttggcaggt aagagggccc 600
aaggtaagaa cgagagccaa cgggcacaag cattctatat ataagtggct cattaggtgt 660
ttattttgtt ctatttaaga atttgtttta ttaaattaat ataaaaatct ttgtaaatct 720
ct 722

```

<210> 155  
 <211> 373  
 <212> DNA  
 <213> Homo sapiens

```

<400> 155
aagacatcct atctagctgc aaggtataat tgatggattc ttccatcctg ccggatgagt 60
gtgggtgtga tacagcctac ataaagactg ttatgatgcg tttgatttta agtttcattg 120
gaactaccaa cttgtttcta aagagctatc ttaagaccaa tatctctttg tttttaaaca 180
aaagatatta ttttgtgtat gaattctaat caagccatc tgtcattatg ttactgtctt 240
ttttaatcat gtggttttgt atattaataa ttgttgactt tcttagattc acttccatat 300
gtgaatgtaa gctcttaact atgtctcttt gtaatgtgta atttctttct gaaataaaac 360
catttgtgaa tat 373

```

<210> 156  
 <211> 1027  
 <212> DNA  
 <213> Homo sapiens

<400> 156  
 gttattttat gggatggatt cacaggacag aggtcaaagg tctatcagga gcatgagaag 60  
 aggtgttggg gtgttgactt taatttgatg gatcctaaac tcttggtctc aggttctgat 120  
 gatgcaaaag tgaagctgtg gtctaccaat ctagacaact cagtggcaag cattgaggca 180  
 aaggctaatg tgtgctgtgt taaattcagc ccctcttcca gataccattt ggctttcggc 240  
 tgtgcagatc actgtgtcca ctactatgat cttcgtaaca ctaaacagcc aatcatggta 300  
 ttcaaaggac accgtaaagc agtctcttat gcaaagtttg tgagtgggta ggaaattgtc 360  
 tctgcctcaa cagacagtca gcttaaaact gtggaatgta gggaaaccat actgcctacg 420  
 ttccttcaag ggtcatatca atgaaaaaaa ctttgtaggc ctgggttcca atggagatta 480  
 tatagcttgt ggaagtgaat ataactctct ctacctgtac tataaaggac tttctaagac 540  
 tttgctaact tttaagtttg atacagtcaa aagtgttctc gacaaagacc gaaaagaaga 600  
 tgatacaaat gaatttggtt gtgctgtgtg ctggagggca ctaccagatg gggagtccaa 660  
 tgtgctgatt gctgctaaca gtcaggggtac aattaagggt ctagaattgg tatgaagggt 720  
 taactcaagt caaattgtac ttgatcctgc tgaatacat ctgcagctga caatgagaga 780  
 agaaacagaa aatgtcatgt gatgtctctc ccaaagtca tcatgggttt tggatttgtt 840  
 ttgaatatatt ttttcttttt ttcttttccc tcttttatga cctttgggac attgggaata 900  
 cccagccaac tctccaccat caatgtaact ccatggacat tgetgtctctt ggtggtgtta 960  
 tctaatttta gtgataggga acaattcttt gataaaaata ataacaaaca taaaagttta 1020  
 tgagcac 1027

<210> 157  
 <211> 790  
 <212> DNA  
 <213> Homo sapiens

<400> 157  
 gcattactga aacagtcaca gttgaccctg ggtcaataat tcactgttg ggctcacac 60  
 agtaccgggtg aggcacggta gtcttcactt tgaacacac ttttctatcc gatggatttc 120  
 gcaatttaag attttagtg actacatctg tgaaggggccc tttgaatttg aggtctatgg 180  
 gcgggtcgag gaccaggatc tgctcgtgct tcgcgtggc cccggaggca gacgccattg 240  
 gagagacagc gcagagcagg gggcggttg ctgctgggg gcgggggacg atggcgagag 300  
 gggaggggga gcaggttcgc atctctcctt ttctgggta gactctgttc aaccacattc 360  
 ttatgttggc agatctgctt ccagattgat ttttagagca ccatcacttt cacattcctg 420  
 attctgattt tgttttgttt tgtttgggtt ttctgaaact taaaatgctg ccccgaaaat 480  
 actataattt tgagtttgtg ttctgaaagc ctccgtgctg ctggatcttt ggggggaaat 540  
 acaggatcct tcagcactga ggtgtttaag atttgcaact agcaatgcaa ttttttctaa 600  
 atatggggat atttaccttt attaagaaat tatactaaac attgatgtcc ttgatcattt 660  
 tatgttctca tattactttt gattctacta tgattgtgtg gtggtgaaca aagatcatta 720  
 caaacaataa ctgtaatttt gttatatttg attcaatgga atttacctaa aaaataaaga 780  
 ctaaaaatgt 790

<210> 158  
 <211> 526  
 <212> DNA  
 <213> Homo sapiens

<400> 158  
 tgctaaatga tcgcaaatc acctaaacaa tacaatttaca aagccatctt tacatgcatt 60  
 aaacgagggc tacaacaata ttgttttaca aatactagca ctttttttctc tgttatgtac 120  
 ttagtgtagg aggggtcaaaa taatctttct gcttagcatc tcttaaacca tacctgcaa 180  
 tatagcagga ttattacatt tacagtactt taatacttgt ataaactatg cagaaatttt 240  
 taataaagtg taatatattt tataagctaa taagactgaa tgggtaaagg ttttttagcat 300  
 gcgttagtat acttgcagat actgaaacat tttggtatc tttcttacta aagatgtgaa 360  
 tgttttaagt accttctctg tttctactct gtagtccaat gggaattcag taatgacatt 420  
 ttgtcatgtc aaactgtgaa cataaatttg tactgtacag tcctcatata ctatatacag 480  
 tatgcaatat atattatata cttgttaata aaaccatcag aatatt 526

<210> 159  
 <211> 778



<212> DNA  
<213> Homo sapiens

<400> 159  
tgctgcgttg tgaggggtgt cagctcagtg catcccaggc agctccttagt gtggagcatt 60  
gaactgtgtg tggttccttc tacttgggga tcatgtagag agcttcacgt ctgaagagag 120  
agctgcacat gttagccaca gagccacccc caggcatcac atgttggtcaa gataaagacc 180  
aaatggatga cctgcgagct caaatattag gtggagccaa cacaccttat gagaaagggtg 240  
tttttaagct agaagttatc attcctgaga ggtaccatt tgaacctcct cagatccgat 300  
ttctcagtc aatttatcat ccaaacattg attctgctgg aaggatttgt ctggatgttc 360  
tcaaattgcc accaaaagggt gcttggagac catccctcaa catcgcaact gtgttgacct 420  
ctattcagct gctcatgtca gaaccaacc ctgatgacct gctcatggct gacatatctt 480  
cggaatttaa atataataag ccggccttct tcaagaatgc cagacagtgg acagagaagc 540  
atgcaagaca gaaacaaaag gctgatgagg aagagatgct tgataatcta ccagaggctg 600  
gtgactcctg tgtacacaac tcaacacaga aaagggaaggc ccgtcagcta gtaggcatag 660  
aaaagaaatt tcatcctgat gtttagggga cttgtcctgg ttcactcttag ttaatgtgtt 720  
ctttgccaaag gtgatctaag ttgcctacct tgaatttttt taaatatatt tgtgacct 778

<210> 160  
<211> 1147  
<212> DNA  
<213> Homo sapiens

<400> 160  
tgatattata aaatcacagt agcaatattg gaatgtcatt ttcattggtg aacattaatg 60  
tattttacttg ctaacatttc agtgaattat aaatatttaa ccacttaaca tggacaaaac 120  
attatggaga atttaaatta ttataaaatg ttttctctcc cctaaagaag atttttgttt 180  
gagccaagac aaaaacatga aaatttaatg cagaccctct ataaaaagta ttattgtatg 240  
tcactcttaa cttattaaat gaaagctttc aaacagtggg aaagaagagg gtagcaaatg 300  
cccatcctta aattatcaac attttccaaa tcatttttaa accaacttgt aaatgtcatt 360  
tttaattggt caacgttatg ttattttgtt aaaccatagt gaaatttaaa atatgtatcc 420  
attgattact gtgtgttggt cctgtgtatt ccttctgttt tctagatttt gcatttgttg 480  
gatttgttag tagtgaagat actatgggtg agatgaagga agaaagagta gtgttcctaa 540  
atccttgcca taaaatcact agtaatctta ctgtttaatt aaacaatagt taatgaaact 600  
ccttatcaag cattgtgcta tgtgtgaaa catatataaa agtttaagta tttcctagtt 660  
ttaaacaag tctttactac aatctgtctc ttttctacaa aattttaatg taagtgcaca 720  
tttggttttc atgaccagag ttacctgttt tggataagat tatcaaaatt tactctaaat 780  
catataagaa aatgagacag agaacatttg cccaatgcat gaaaaatgat gccacttgag 840  
gccttttctt tttaagaatg cagttatggg ccgggagcga tagctcacgt ctgtaatccc 900  
agcacttttg ggactgaggc gggaggatca cgaggtcagg agattgagac catcctggct 960  
aacaggggtg aaccctgtct ccactaaact acaaaaaatt agccgggctg ggtagcaggc 1020  
gcctgtagtc ccagctactc gggaggctga ggcaggagaa tgggtgtgagc ctgggaggca 1080  
gagcttgtag tgagccaaca tcgcaccact gcactccagc ctgggcaaca aagcgagact 1140  
ccatctc 1147

<210> 161  
<211> 636  
<212> DNA  
<213> Homo sapiens

<400> 161  
cagatcgaag tatttcacaa gaatacttgt gtttttaaca gcccttcccc tggacgggtg 60  
ggccatgagg gctcatgtt acggcattgc cttttcttct tgtggatcca gtatcttctt 120  
cggctttttaa gggagcagga aaaaatgcgtc tgagagcaac tcttttttaa aacctgccct 180  
gttgatata actgtgtctg tttcaccgtg tgacctcca aggggggtgg aacttgatat 240  
aaacgtttta aggggccacg atttgcccga ggggtactcc tttgctctca ccttgatgg 300  
atgaggagat gaagccattt cttatcctgt agatgtgaag cactttcagt ttcagcgat 360  
gttggaaatg agcatcagaa gctcgttcct tcacactcag tggcgtctgt gcttgtccac 420  
atgcactggg cgtctgggac cttgaatgcc tgccctgggt gtgtggactc cttaatgcc 480  
atcatttctt cacttctctg ggacaccag ggcgcctgtt gacaagtgtg gagaaactcc 540  
taattttaat gtcacagaca atgtcctagt gttgactact acaatgttga tgctacactg 600  
ttgtaattat taaactgatt atttttctta tgtcac 636

<210> 162

<211> 1224  
 <212> DNA  
 <213> Homo sapiens

<400> 162

```

ttgaattcta gacctttttt ctagaaatgt tcaatttgct tccaataact tctgccattt 60
tcagtttgct tgtatgctca gaaagcattg ctgtgaaaca gtctagagcc tcttgaaaaa 120
tatttaatga tgctgataaa gatgaactgt caaagctatg ggcaatccta ttacaccaat 180
tcagcagatc ccttagagat aattctcttc cctcaagggt tggctctttg ttttctcttc 240
tggcttctga aacttcttca ggtgcctggt cacatccaac agaactatca ctccaagagt 300
gatgtttctc tccagtaagt tggatataaa tgtcaagcag gtgatcaacc actgccataa 360
ggctaggata tctgctctga agaacctcat tcagttctct cttatccagg ttatccaggt 420
gaattttggt ccaatatattg tctagcaaag tagcatgact gtttagcggg cgataccaat 480
ttcctccaca gctcaagagt ctcttggttg caaaaacctg aaatccaggt gccactttca 540
gacagtccac tcggccagga atcaagagct ctccattctc caagagaggg atcagcacag 600
aaaccacgtc taagggggca tagtcaatat cctccagaag gatccagtggt ccattgtggt 660
ctgcctgtgt cagggtgcca ggctgccaca caaactctcc aggaacatct gtgcagcgat 720
acatcccca aagcatctta ctgtcagctc gatctccaag ctggactttg agaagctgag 780
gaggctttgt tctacctgtc actgcagcta aatattcaac taagggaagt ttgccacatc 840
ctattggtcc ttccaacaac acagcattct gagaagcaac cgccatagcc agggctctgaa 900
gacttttgca gacagactca accagcacat aagacctaag ggccagctcc tgttcacgtg 960
aagaactcct attaccaccc agctctccag gggctggcag ctgccagggc agcaccacac 1020
cacaacagc tgtcacccca ggggagaggt cagacgaaac aagatgtccc tgtaagtact 1080
gcagctcctt ctgttacgcc aaagggagac ttctggattg gccaaaacca aggccttctc 1140
caagtctgac aactgggcct cttctaataa cctcaacctg aaatggatca attcatcact 1200
attaatatac ttctattcta gact                                     1224

```

<210> 163  
 <211> 1015  
 <212> DNA  
 <213> Homo sapiens

<400> 163

```

gcagggtac catctcactc ttctgtaatt tcacaacatt ctaaaggaag taaatcacca 60
gatttgctga tgtatcaggg tccaccagac actgcagaaa taataaaaac attacctcag 120
aaatacagaa ggaacttgtt gtctcaagaa gaaatggaat ttatccaacg tggaggtcct 180
gaataacatc ggtggctgct gtttgtcatc agacaataga attgtcttta caataaagga 240
cttccaaaat gacagatgag aaactgtata ttaaacacct ttaataaata ttatgaaaaa 300
aatgaaaatc agaaaattta gatggacact tgtatttctc aatttatgta tcttggtcag 360
cttctccaca agcttaccta attgtttata tactttatac ttattaaagt atacattttt 420
aaatggttagc ctattaattt actcttgatt atcaaacatt accagtgttg aactattaaa 480
agcacacaat gtgtagtaaa ctatcatagg attcccataa ttccacttta ctttctgttt 540
aggcatggaa aaatttatca gtcagaattg ctgttttagg gacatgattt tcttgaaatt 600
gggtgaggat cagtgaataa attactctat tacttgttct taattctctg ttctctaatt 660
tttttctatt cacaagttta ctggagtata actggcttag taagtatatc ctactctgaa 720
tgataaaaat atagtcaagc taaaataggt gactatacta ttaagataga gatcatacaa 780
aagattccaa agaaagtcaa aaagtgtaaa atggaaaata agagatcaaa atgaatatag 840
cataggaata aagatttcac tagaaattgc aatttattat gttttggagg ttgtaaggaa 900
gtcttgtttt ttggtttatt ttactgtttt gtgatcttgt atgcaaatcc tgataaccat 960
taaccttctc aaacttaatt tctgagagcc tcataaaatc aacatattta cttat 1015

```

<210> 164  
 <211> 1167  
 <212> DNA  
 <213> Homo sapiens

<400> 164

```

gtcattattg atttcagagt aactctgagt aatcaaatag gtaaaagcat gttttgagta 60
aaatagctag atttatactt tacttgatata cagacttaac aacaaccggt attgactgga 120
ttgacagcta aagtatcaga atgaaagcaa ggtttttttg atgttacctg actgtcataa 180
agatgaaaat gatttgattt ggtatgaaat gcttatcttt attctacttc gtaagggtgaa 240
gttttattta tactctttgg actcccatga acttttgcac actgctttgt gttttgggtt 300
accctaaact accatccttt ttatctttgc ttttttctt cctattcaga aaagagcaaa 360
atgtgaaaag acacaagact ctgaggtata gaatgaactg agcaatttgg agaattgatt 420
ggactttgtc ctctcttatt ccccccctc agccctgcaa gttgctaggt acttgtagg 480

```

```

cagtgtactg gagaggggag agcatggatc ctgggggtcaa agggcctttg cccccaccct 540
tactttggccc tctacctgca ggtgaccact ggcacattct cctgcttgtc tcagcttcag 600
gttcttcacc tctaagatgg ggatgatgaa aacagtacct gtcatgcaga attggtggga 660
ggattgataa tttagatgtt tatacatgta atgtacttag atcagtgtct gctcttttca 720
cttgatatcc agtactatgt aagatagaag gtgcatgtct tctgtattct gtatttccca 780
tttcttttgc gtgcagtcct tgattcgtac aatagaagga acacgtagaa tgtatatttg 840
tacattcatg tcaacatagt atttgaaatt gctaccaaac tcatttaatt tggcataaga 900
ctaacagatg aagtctctca tttgcttgaa gatattttac aaaataccaa ctgttctata 960
tttcttttaga aaaagattat agttattaat attgatacct ctgataatat tttattctta 1020
aatcttcagt gattcctttt actatagatt catgacagct aattagtact aactgattta 1080
gaggtgttcc tttcccatca tttggaatga tgtaaagaat tcagatacaa actactgcaa 1140
ttagaaaata aaatatgaac aactttc 1167

```

&lt;210&gt; 165

&lt;211&gt; 1253

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 165

```

ggaagctgac ggtgttcact gtgctgtgtg agcagtagca gccatccctc cggcggggacc 60
ccatgtacaa cgagtacctc gaccgcatag gacagctgtt cttcggcgtc ccgcccgaagc 120
agacgtcttc ctacgggggc ctgctcgga accttctgac cagcctcatg ggctcctcag 180
agcaggagga tggggaggag agccccagcg acggcagccc catcgagctg gactgaactg 240
gccaggccac gtggagacac cacggctcgac gacggctgga gggacgtttc agaggcgagt 300
cctgggtggc tctcgcctt gggggctcct ggccctgaag ctggcggtgg cgcagcccg 360
cgctgtctg tttctgtgcg gcggtcagg gtggcgcggc tgctgtcac tgtgtgctg 420
ggacccaaga gtggggcgtc gccctgctgg ccgcccgtc ccccgagatt gaccacaat 480
aaagcacagg ccttaccgcg gcgtcacct ctccactcc tttgttctgg gtcctttcag 540
gagggctgat gggcagcaca ggaggccgt cctcgggggg ctgcgcacat cacgtcctt 600
gccgggctgc cggcacagct gcggtcacca aagcagggtc tggccctcgg acctgagagc 660
ccagccaggg cccatgttgt ctgcaaatgg gagcggctgt ttttgaacac ggggtcattc 720
tgagtcagg acgaaccggt cccgctcgca gacggagtgc acgtgccctg cggcacatcc 780
tcacgctcgg tggaggagcg cgtgcggcg gacgggtgct acgggtactt gcagctgtgt 840
cccatgtggc atcccagagc tgcgcctgc tgggtctctgt gagcgccagc ctgctgtgct 900
ggaaatgccg ctttaaaaag ggataccgtg ggactctgcc cgtctctttc ataacgcaat 960
atttatttgt attgggtgac gattgattct ttcgacctaa cattttgggt ttttaacaaa 1020
taaccgggtc aggagtgagc agctccgttc tgcagatgc tactccaaat gttaccagaa 1080
cgatgacaaa aggggagacg ctctattttt tcacagttaa atgacagttg tagattgata 1140
cgagttgtg cttgggaagg ggaaacgcac agctttattt actgtaaagt ggaatttcag 1200
gaaggcttgt gtgaaccgtt gcgcataaat aaacctttc taccgggctg tgc 1253

```

&lt;210&gt; 166

&lt;211&gt; 1328

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 166

```

acccacacac actcatggcc aggattgagt cctatgaagg aagggaaaga aaggcatatc 60
tgatgtcagg aggactttct gtttgttgt cacctttgac ctcttattcg taacattact 120
gtggataata gagttaaatg tgaatggagg cattgagaac acattagaga aggagggtgat 180
gcagtatgac tactattctt catattttga tatatttctt ctggcagttt ttcgatttaa 240
agtgttaata cttgcatatg ctgtgtgcag actgcgccat tgggtgggcaa tagcgctttt 300
ctctcaaggg gcttttggct atgtgtgccc catcatttca ttcacctctg cctggattga 360
gacgtgggtc ctggatttca aagtgttacc tcaagaagca gaagaagaaa acagactcct 420
gatagttcag gatgcttcag agagggcagc acttatacct ggtgggtctt ctgatggtca 480
gttttattcc cctcctgaat ccgaagcagg atctgaagaa gctgaagaaa aacaggacag 540
tgagaaccca cttttagaac tatgagtact acttttgtta aatgtgaaaa accctcacag 600
aaagtcatcg agggcaaaaag aggcaggcag tggagtctcc ctgtcgacag taaagttgaa 660
atggtgacgt ccaactgctg ctttattgaa cagctaataa agatttattt attgtaatac 720
ctcacagacg ttgcaccata tccatgcaca tttagttgcc tgcctgtggc tggtaaggta 780
atgtcatgat tcatcctctc ttcagtgaga ctgagcctga tgtgttaaca aatagggtgaa 840
gaaagtcttg tgctgtatcc ctaatcaaaa gacttaatat attgaagtaa cactttttta 900
gtaagcaaga taccttttta tttcaattca cagaatggaa tttttttgtt tcatgtctca 960
gatttatttt gtatttcttt ttttaacactc tacatttccc ttgtttttta actcatgcac 1020

```

```

atgtgctctt tgtacagttt taaaaagtgt aataaaatct gacatgtcaa tgtggctagt 1080
tttatttttc ttgttttgca ttatgtgtat ggccctgaagt gttggacttg caaaaggga 1140
agaaaggaat tgcgaataca tgtaaaatgt cacgagacat ttgtattatt ttatcatga 1200
aatcatgttt ttctctgatt gttctgaaat gttctaaata ctcttatttt gaatgcacaa 1260
aatgacttaa accattcata tcatgtttcc ttgtcggttca gccaatattca attaaaatga 1320
actaaatt
1328

```

&lt;210&gt; 167

&lt;211&gt; 451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 167

```

ccctctgtaa tttacaagat ttttcaaatt ggtggggagt gaataaatat aatttaaaag 60
agtcagaaat cagtttgga aagtgtactt tottaatttc tatttatgat gaagtatagt 120
cataatttat ttgtaatact actttatggt ataccagtga aagaactgta gtataaaaaa 180
gagggtattaa tgttttatga aatctcatgc atcagttcat agcataaaat ctactgtggac 240
aactaagaag ctatggtagc aaacagtgat gttgatggaa tgagaatcat gaactttcat 300
attacctcaa aggatttttt tatcagtttt ttccacacat cagaaaaaac tgactgtata 360
aacacttatc actgaccttt ttctatgtgt agttttgcct tttatctttt cccaaatttt 420
tataaagaga aattaataaa tattttatta c
451

```

&lt;210&gt; 168

&lt;211&gt; 913

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 168

```

accatttaaa agcttacaaa aagcaggaac agtaattgaa gatatcagtc tatagagtaa 60
ccactatggt tatcattat ttgttactct aatacttgca taagaacgta tatgtgcatt 120
catgctgtga tacatattgg ccactattac cttttgtctg ttgtgtataa tacagattct 180
tggtctctctg tgtcatcacc aacatgtaat attgtcagaa tttttatttt ttgtcagttt 240
attggtttta aaactcttat cttgtgttca ctttgcattc cttgcagggt gaggatgttt 300
tggtttctgg tcttagtctc attcttctct ctttttctctg ttggtcttgt tcttttcttt 360
ttgatttgta gggatatatag gatggtgcaa agtaatgagg tttttgcacg gttgaaattg 420
tcattgatac tggaaatacct cttaaaacttc ttaaatgtgg ttatgttata catcatttta 480
atgggcattt ctcaactttg tttttttttt ttgctaataa ctttcaagtg gttttcttat 540
tttatttttag actatggaaa tgatattaga caaaaaagca acttcaagtg gttttcttat 600
ttgagttcaa aatgggtcat aacgcagcag agatacttga aacatgaaca gcgcatttgg 660
ccccaggaac tactaacgaa catcacgggc agctgtgatt caagaagttt tgcaaagcag 720
actagagcct tgaatatgag gaacacagtg gccagccatt ggatgcttca cttcttgaag 780
catcttgaca gctttttgca ggtgaaatgc ttccacacca gcaggatgca gaaaaatgct 840
ttccaagagt ttgttgaatc cagaagcatg gatgtttatg ctgcaggaaat aaacaaattt 900
atttctcgtt ggc
913

```

&lt;210&gt; 169

&lt;211&gt; 1072

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 169

```

attctgtgtc attccttccc gtctccttca tagaatacta ctttttctct ttgtctctct 60
gccattctcc atcatctgct gattattgct aaccacagga tgctggcaaa gcttacagt 120
ataggcacat gtgttcagtg atgtccaata cactcttata acagtggta ttgtctctta 180
ctcttttcaa atgcattatt ctaccttca acctacatcc aatcattaga actatacctg 240
actggagccc agaacttggg accaataactt aattcaata gcaggggctt gctcacaac 300
attaagccca acaagaagca cagcactttg aaaagtcaaa taggcctttg gtagctctgt 360
acatttgcaa ttttacattt gttattagtt tatagcacta ataacacttc agtcgtgaat 420
ctacagtctc aatatgataa gtcttagaac atgttctaga aatagtggta ccttgctgct 480
attatactta gtaacttata ccccaatata ataataagta ttaataacag attgtgtatg 540
cattctttgt gtgtatatgc caactgtact acttaacctc actgatgagc aattagaaaa 600
atacacaat tgcataagtg aaaataagtc ttggtcaatt cagatgatac gtgaacctga 660
taaagtctct aatagatatg ctattttgtc ctgtattgcc tgtttcacag tatgggtgat 720
gttgtttgct aagtaaaaaat gataataata ataaagtata ccaattttta gggttagaat 780

```

```

taaaatTTTTg cacatatgcc tcttgatatt ctgaaatgta ttctgtgggt taattatctt 840
attcatacac atttcacttg gctttttacc cctaggaat aattgtccaa gtatatatct 900
cgtcctcttt cttgtaactt tgaataaanc tgctacttc aacttacaac attgtaaagc 960
cagaataacct cattttaaca gtgaaaaaaa atatgatgac cgatgtggtc tcttgattt 1020
gattgaacca ccaaataggc tnactgggaa aaaaaaaac aatttgccag gc 1072

```

&lt;210&gt; 170

&lt;211&gt; 1114

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 170

```

cctttggcct ttgctggctg tgtggcggt cgcgggttc caggctgttc gctgagcgtc 60
tctgcttagc cgcgggtcatg agccggcaca gccggctgca gaggcaggtt ctgagcctgt 120
accgcgatct gctgcgcgcc gtgctggga agccgggcgc cgaggcgcga gtgcgggcag 180
agttccggca gcatgcgggc ctgccgcggt ccgacgtgct gcgcacgag tacctgtacc 240
gccgcggggc gcgccagctg cagctgctac gctcgggcca cgcaccgcc atgggcgcct 300
tcgtacgccc gcggggcccc accggggagc ctggcggcgt gggttcccag cctgacgacg 360
gcgacagtcc aaggaaacccc caccacagca cgggggcacc ggagaccgcg cccgacggac 420
gggtgacaggc gaagagccga actcgtcga tggcgtgggt gagccaggag gctcgcctga 480
ctgcatgggg ggactgggga accgcctaa ggtgagaggt cttaagagac tagcttgacg 540
aattggggat gtcagagact cctccttggc gacgcagggg gcctagagag ccccgatgag 600
gacggcaagg gagggccgcc ttttccgatg cttggagaca ggtcgggtgct cctcccccat 660
gagggccttg ggcggccttg gacgctggcg ggctggacag tgtcaagcca agagctactt 720
gcccaaggt acggggagcc aggacgaccc ccggtggaca gggagagcct gagacgccct 780
tctcttgacc cctgagaaca taccacttc tggctcctca aggagtctcc cctctcctgt 840
atttaactct gagaagtgca gactttttgc tgagaacgtt ttgggaaggt gccctgatga 900
gcggtgagaa gcccggaatc ccttcttggg aaactttccc ccattaattg tgacaagcca 960
ggaccatgag gaaggggtag ggggtctatca ccctggttga tcaactgaag acccccaag 1020
gcccctactt gatgggtttg aggggcaaca ttgattcatt tcccccttcc ctcttggaat 1080
ttttgaaaaa gggaataaaa ttggggatat tttt 1114

```

&lt;210&gt; 171

&lt;211&gt; 1111

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 171

```

tttattttta aatccaaggg gccagaacaa atgagacacc tacccttggg ggacaaaactc 60
aagtggccaa ggttggggga ggggatgaca gcaaggggct gggcagggaac gcgtccaaac 120
acagcagatg gagaggacga cctcttcaact ccggcgcagc ctccatcaaa taccatttct 180
ccggagccag gtacgcgtcg ccgccctcag actccatgta catgtctcgg ctgtcgttgc 240
ccagaccctc cagcccgttg tcttgccac cgcgccacc tcgggcctca tccctgcccc 300
gctcactgcc ccgctcccc cgtttgtgct cgcggtcacg gtcacgggtca cgatcccggt 360
cccggcgccg ctgcgcctcg ctccgggtggc tccgcccgtc ctcccgggtca cgatcccgcc 420
ccttttctc tggaccgtca gggccgtcag gcccgagctc ccctggaggc ccatcatcag 480
ggggcgcgtc accgcctcg gagggctccg ccatgtcgcc accgcgcga cgcagctcct 540
ccttgcgctc ccgctcccg cgggcccgt cccgactccg gctgcttcgc cgcttccgg 600
cccggctcct gtcccttgc cgtccctgg agcgcctcc ctccctcttg tcgcgactcc 660
gtgagcgccg ccggtcccgg gagcgggagc gtcgccgttc tcgctccttg tctcgtccc 720
ggctccgctc tctgcgctcc cgtcacgggt ccgggtccc gtcctgtgc ggaagcgggg 780
aggggcccgg cctctcatcg tagcgggagg tgcacgcg gcctgaatgc cggatgttca 840
catcagcccc tctcttctg gtaccaccga ggcctcctcc tagccgcgg ggcctccagc 900
ccttcacggg tcggccctc tcacgtcca caaggacct cctgcatca atcttcttgc 960
catctgcgtg ttgtgaagcg gactgcatgt ctgcgtcgtg ttcgtactcg atgaaggcat 1020
agccacgggg ctttctgac cgttactgt agaccatgt tattcttttg ataggtccgt 1080
acacctcaaa ctctctccg agtctagacc t 1111

```

&lt;210&gt; 172

&lt;211&gt; 858

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 172

```

cttttttttt tttttttaca cattataaac cagccagttt attattttgt agtaagattt 60
agaactttta ccatgcagac tgaatatatct gtgtcagcat gaacagtaca ttttcttcct 120
agaggcagtt acatggaaaa ccagggttatt atcagggttat ttagcaagta tggaaatccaa 180
acaagaggag actaatctta agacctataa ctcgtccatg aaggcttggg gcacactttt 240
ctaccaccag aatgccttag ctccagaaa gctgtggact ctccctctc cgtcttgggc 300
tggctgagta ccgctactgc tcagtcactt cctgcagcca taccgtcagg ccagcttggc 360
ctaaaagctg ttatctctgg tcaactggtt gtgttgttac agccactgct actaacagtt 420
aaggttctga agggggcatg tcaattgctc ccagggtacca actaggagac acaataatcc 480
tattagtttg ttctcccaa cccactccag tttatcaggt aatatgctct gtaaggttct 540
ttccaacccc attagcacat acatagatta cctataattt cacctaattg aatctacctt 600
cctactgagg attgaggttt taacgtttgt tttttttccc cccactttct tgatcagtga 660
ttctcaacca tgtaggaatt aatgaaacca attctgtatc accactgcaa ccaagacagc 720
aataccaagt gatatgtatt tttcaacta atgtcatttt gtctctata ctgtaaaaaa 780
cgagaagatg cagtcctcaa cttagaactc aatactagga agggccaagt tgtcaaaaaa 840
tgattgaatt ctagacct                                     858

```

&lt;210&gt; 173

&lt;211&gt; 18

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 173

cgattgaatt ctagacct

18

&lt;210&gt; 174

&lt;211&gt; 1146

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 174

```

tggagcgatt tagccaagaa gttcagatta cagaagcccg ctgtttctat ggcttccaaa 60
ttgccatgga aaacatacat tctgaaatgt atagtcttct tattgacact tacataaaaag 120
atcccaaaga aagggaattt ctcttcaatg ccattgaaac gatgccttgt gtcaagaaga 180
aggcagactg ggccttgccg tggattgggg acaaaggagg tacctatggg gaacgtgttg 240
tagcctttgc tgcagtggaa ggcattttct tttccggttc ttttgcgtcg atattctggc 300
tcaagaaacg aggactgatg cctggcctca cattttctaa tgaacttatt agcagagatg 360
agggttttaca ctgtgatttt gcttgcttga tgttcaaaca cctgggtacac aaacctcgg 420
aggagagagt aagagaaata attatcaatg ctgttcggat agaacaggag ttccctcactg 480
aggccttgcc tgtgaagctc attgggatga attgcactct aatgaagcaa tacattgagt 540
ttgtggcaga cagacttatg ctggaactgg gtttttagcaa ggttttcaga gtagagaacc 600
catttgactt tatggagaat atttcactgg aaggaaagac taacttcttt gagaagagag 660
taggcgagta tcagaggatg ggagtgtatg caagtccaac agagaattct tttaccttgg 720
atgctgactt ctaaatgaac tgaagatgtg cccttacttg gctgattttt tttttccatc 780
tcataagaaa aatcagctga agtggtacca actagccaca ccatgaattg tccgtaattg 840
tcattaacag catctttaaa actgtgtagc tacctcaca ccagtcctgt ctgtttatag 900
tgctggtagt atcacctttt gccagaaggc ctggctggct gtgacttacc atagcagtga 960
caatggcagt cttggcttta aagtgagggg tgacccttta gtgagcttag cacagcggga 1020
ttaaacagtc ctttaaccat cacagccagt taaaagatgc agcctcactg cttcaacgca 1080
gattttaatg tttacttaaa tataaacctg gcactttaca aacaaataaa cattgtttgt 1140
actcac                                     1146

```

&lt;210&gt; 175

&lt;211&gt; 496

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 175

```

gtaagggtg aggatthttg gtcgcacgc tctgtctct gactcaccgc tgttcgctct 60
cgccgaggaa caagtgggtc aggaagcccg cgcgcaacag ccatggcttt taaggatacc 120
ggaaaaaacac ccgtggagcc ggaggtggca attcaccgaa ttcgaatcac cctaacaagc 180
cgcaacgtaa aatccttgga aaaggtgtgt gctgacttga taagagggcg aaaagaaaag 240
aatctcaaag tgaaggagcc agttcgaatg cctaccaaga ctttgagaat cactacaaga 300
aaaactcctt gtggtgaagg ttctaagacg tgggatcggt tccagatgag aattcacaag 360
cgactcattg acttgacag tccttctgag attgttaagc agattacttc catcagtatt 420

```

gagccaggag ttgaggtgga agtcaccatt gcagatgctt aagtcaacta ttttaataaa 480  
 ttgatgacca gttgtt 496

<210> 176

<211> 1297

<212> DNA

<213> Homo sapiens

<400> 176

tgcctattgc tgtgcttata aaatgaaaaa ggaaattgag gacacttttg caaatgccag 60  
 aatgtaagat tcattcagtg tgctccctgg gcctttatgg catgggttga caggatttgt 120  
 ttattttcta aaattagctt cattcaatat ttatcatcct cctttccctc tctgagaatg 180  
 aactatgtat aaaataagct tctgcctatt tgcatttatc ttccaaaccc aatctagtag 240  
 gatgttctca ttttaaaaac gaggggaaaa gaccagagtc tttcaggaga aaactggagg 300  
 aaaatgggca caaaaactca gaaggcagct attcccagca gcttcctagt taacaacccc 360  
 catgctgcct ccagtctttg tctgtattct tctgtattta accttcagat tgaagcctt 420  
 ttctggcaag cttttcttct ttttttaaac tcttttcctg aaacttttta tgaatggcta 480  
 tggcaccatt aatgctgctg aatatcttta aactctgcac aagcaagtgt gttagcttaag 540  
 gccactactg gtaagggaac caagtgtcct ctgtgccttt tttctttctg tgaagtaatt 600  
 taagaatata caaaaaaatt agacttttaa aagttatctt ggtacaacac cgtgtgtata 660  
 tacacttgga agcttaaaaa ggtgttttgt ctggaactta gaagcagctc taaatctagt 720  
 agagcagact ttctaacata cctagttttg tgtattggct ttgctggagt atgatagcaa 780  
 aatgaagact cttttactca gctctggtat tgctcataac ttaccaagag gctaatacta 840  
 aacttggaat attgtttaag tatgttttat caagcagctt gggtttttgt ttttaataata 900  
 ctttttaatt gatatgtgaa aactgaagga aatgttaaaag gttttttaat ggtgcaagtgt 960  
 aagggtgccag ttgctatttg atatcacact ctacaaaagc ttcattactt tatttgatgg 1020  
 tgggtgctaa gcagccattg cacagagcat aagtcactg ggtgccttta catgccagag 1080  
 gctgatgctg cactgttgat gtcagtgtgag gaaataatgc acatgctcta actgctcaac 1140  
 aggaaatgaa cctagaaaca gaaaatgaaa aggttgattg aaataaaact tgatcaacgc 1200  
 gactgtattt tgaacattc caggaagggt acttctgtc aaacttgctt ggcagtgttt 1260  
 gttcaaaact tgtatttaat aaatgaacat ctgactt 1297

<210> 177

<211> 1145

<212> DNA

<213> Homo sapiens

<400> 177

tttttttttt ttaccagagg aagcagcttt tattgatggg ttatctccag aaaccagaaa 60  
 gactatatgt actcactttc agttaccccc gtgcctccag aatcgcatgt tgctccacct 120  
 gggggcggat ataaattacc tctagattgt ccaaagccca gtctttccct tcctgtgca 180  
 gccttagaaa ctaagtagca gtactgtttg gtgtgtgttt gtttcttccc cagcaatgcc 240  
 tactgcagct acttagtaac aactagaggt ggaggggtgc cggggaagca gttagatgag 300  
 ttaagtgtga tgcacaggaa aatagtatcg tagcctatca aaggctccctc tgccctgcct 360  
 cagtggtcttg attcttcatt ggttgcatth ctctttgtgt tggatgacgc ccttctgaat 420  
 cagatcaggy atttccactg ccagccatgg acccagctgc aatacaagga aaatcctgtg 480  
 agattactac cagtcaatgc ttcttgttcc attagaagct ccttcctgga gacagattct 540  
 gggggaaacat gcttaaggga catcactgtt attcctttta ttcttagctg cttttcttgt 600  
 actgctcagg gcctaagtcc ctctttctcc ttttatgcca aatacacaaa acttaccccc 660  
 agagccatga gatgagctag tccaaatttg ggcacattcc tggcccacaa aggtttgaaa 720  
 tgatccgtca ggcataatth gccacccta tgagaggac atgaagaagg tgttgacatg 780  
 caaagtthac cataaagcac agcagcctct tgggggcata ggaagactac tagtgatcag 840  
 aattgagaac aagttcagct aagtactttg cttaggctca gcaaaggagg gcctggcacc 900  
 ccactaggcc agcagaccct gggaaaatct ctgcctccaa agttcttccct tttttttttt 960  
 ttctttacat cttttaagtt cagaggtaca catgcaggat gtataggttt gttacatagg 1020  
 taaacgtgcc atggtgattt acacatagat catcccatca ccagacatc aagccaagca 1080  
 tccattagct attcttccct atgctctccc tcccgcacg aagttcttcc attgaattct 1140  
 agact 1145

<210> 178

<211> 2173

<212> DNA

<213> Homo sapiens

&lt;400&gt; 178

```

cttcttctctg ctcaacctcg ccatctcoga cttctctgct ggcgccttct gcatcccact 60
gtatgtacctg tacgtgctga caggccgctg gaccttcggc cggggcctct gcaagctgtg 120
gctggtagtg gactacctgc tgtgcacctc ctctgccttc aacatcgtgc tcatcagcta 180
cgaccgcttc ctgtcgggtca cccgagcggg ctcataccgg gccagcagg gtgacacgag 240
gcgggcagtg cggaagatgc tgctgggtgt ggtgctggcc ttcctgctgt acggaccagc 300
catcctgagc tgggagtagc tgtccggggg cagctccatc cccgagggcc actgctatgc 360
cgagttcttc tacaactggg acttctctcat caggcttcc accctggagt tctttacgcc 420
cttctcagc gtcaccttct ttaacctcag catctacctg aacatccaga ggcgcacccg 480
cctccggctg gatggggctc gagaggcagc cggccccgag cccctcccg aggccagcc 540
ctcaccaccc ccaccgctg gctgctgggg ctgctggcag aaggggcagc gggaggccat 600
gccgctgcac aggtatgggg tgggtgaggc ggccgtaggc gctgaggccg gggaggcgac 660
cctcgggggt ggcgggtggg ggggtccgt ggcttcccc accctcagct ccggcagctc 720
ctcagggggc actgagaggc cgcgctcact caagaggggc tccaagccgt cggcgtctct 780
ggcctcactg gagaagcgca tgaagatggt gtcccagagc ttcaccacgc gctttcggt 840
gtctcgggac aggaaagtgg ccaagtctgt ggcgtcatc gtgagcatct ttgggctctg 900
ctgggccccca tacacgctgd tgatgatcat cggggccgcc tgccatggcc actgcttccc 960
tgactactgg tacgaaacct ccttctgggt cctgtgggcc aactcggctg tcaacctgt 1020
cctctacctc ctgtgccacc acagcttccg cggggccttc accaagctgc tctgccccca 1080
gaagctcaaa atccagcccc acagctccct ggagcactgc tggagtgag tggccacca 1140
gagcctccct cagccacgcc tctctcagcc caggtctcct gggcatctgg cctgctgcc 1200
ccctaccggc ctggttcccc cagggtgag ccccgccgtg tctgtggccc tctcttaag 1260
ccacggcagc caccctgccca tggaggcggc ttcctgggtt ggccagaggc cccctcactg 1320
gctggaactg aggtgggtg gccggccctg ccccccacat tctggctcca ccgggaggga 1380
cagctctggg gtcccagaca tgcgtccac cccctgctgg tgcccacct tgcagttac 1440
tggttggtgt tcttcccaaa gcaagcacct ggggtgtctc caggttctc gccctagcag 1500
tttgctctg cacgtgcaca cacctgcaca cccctgcaca cacctgcaca ccgtccctct 1560
ccccggacaa gccaggaca ctgcctttgc tgccttctgt ctcttgcata agcctcaggg 1620
ctggcccttt caccctctt cccaccaact ctctctgccc ccaaaagtgt caagggggccc 1680
taggaacctc gaagctgttc tctgcttttc cattctgggt gttttcagaa agatgaagaa 1740
gaaaacatgt ctgtgaactt gatgttctg ggatgtttaa tcaagagaga caaatgtct 1800
gaggagctca gggctggatt ggcagggtg ggtcccaag cctcctccc tccgttaagg 1860
cttccggctg agctgtgcca gctgcttctg cccacccgc ctctgggctc acaccagccc 1920
tggtggccaa gcctgccccg gccactctgt ttgctcacc aggacctctg ggggttgtg 1980
ggaggagggg gcccgctgg gcccgagggt cccaaggcgt gcaggggcgg tccagaggag 2040
gtgcccggg agggggcgt tgcctatgt ctgtgaccc gtgccacgc ctctgcatgc 2100
tcctctgct gtgcccgtg cgtgcccctg caaacctga ggtcacata aagtgtattt 2160
ttttattggt gct

```

&lt;210&gt; 179

&lt;211&gt; 2996

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 179

```

aagacgagac gctgcgactg ttcctgcagc agagcggccc ggacgcctca tccccctct 60
gggcccggg ctccatgagc aagaggctgc aggtgcttc tgagatccag cctgggaact 120
gtccaggctc ctctgtcctg cctgggatgg aggggcccact catcaaacc tctactcccc 180
ggctgccacc cactctggac agagaccacc actacctggg tcttgacgca ggtggacca 240
cttcttggcc aaatgccgtg gcctgggccc agggccccc agcactgggt ccccgcatg 300
tggaacaagg cactcaccac atctgtggtt ggtggaggc tgccctgggc ccttctgtg 360
accctcagcc ttggagggtc ggggtgccct acacctggg atctgtgctc agccaccca 420
tgcccgtgc tcttctgttt tggagggtcat cccctcccc cccagtctct gcaatgtccc 480
cctgccaccc tgtccaggct atgcccctct tgggtcctc ctgccccatg cctgaggcac 540
gtcccttttc gtggtttaca tgacaggcca gtaacaggaa gggcctgggg agagtctctg 600
ggctgagcca catgtgattt tcttgatggg cagcactggg ccacagctgg ggtctgtgt 660
ggctgtgacc tccccaggg cctggctgca tottgggtcc ctgtggacag agctgtgtag 720
gctgcagatg agagtctgt tctttttggg aaggagcgtg tctggccagg tctgacctt 780
agtttgtggt gtgacctta gcagttcact cagcctgtct gggctcttgg tggaaacagg 840
tctctgaggt tcttcttcgg ccatgcttat ggtccagggt catccagcgc cacaggcag 900
gggtcctcac tgagggggcg tgagccaaca gccgacggct gagggcgggc cgggtggagc 960
tgagttctgc tgccttgagc tgcgtgcggg tggagagttg cctccccact ctgagcccgt 1020
gtcctcagta gtaaaatggg cagcataagg cctcctcac aggatctctg catcaagtga 1080
gatcttcagt gtaaatgacc atgtataaac tgtaaagtgc aatagaaaac tgtgtgtgtg 1140

```



```

aggaaagtaa ggcctagagg ggggtgatgtg tggcacatga caggggagat cccacagctg 1200
cagcacgggg acaggccgct tccccacatc cgctcatgcc actgtaagca gccctagctc 1260
ttgggtccag gacctacca ggtcctcgtc agactcctgt gctcttcag gggctgctca 1320
gccccacctg aagagcccag agaggctgtc ttcttaccga gcaggtctca tgcaggccca 1380
gggctgggga tgcaggcaag agggaggaga tggccgccct gtccctctcc ctactgtggc 1440
gctctattct gagcagttct tgcctccggt ttgctctcag gggaaaggct cagcctcccc 1500
atcttagccc caggggggta agtgggtgct ggtgatggga tgggtgtggc ctctgtccgt 1560
gggtgttgcc agggaggctct ttgggaaggga gtgtcgcccg gtcagggtgt ggcctcccg 1620
tcactagggg tgtacacgtg aagttgggtg aacacctgct gctcatggta cccagtgtt 1680
cttgcccgag tgggcagctg agcagaggcc cctctgggtc ttgcagtcca aagaaccgca 1740
gagtagccca agggctgtgg gtccattttg agtggcagcc aagctgtggga gccctgtgtc 1800
atcatgtttg ggtcagggtg gctgtggcac cactgaaata agcaataagt acgggctcct 1860
ggtagctgct gatctcctgc aaacaggccc agagaacagc cttgaagcca cctttccct 1920
caaggggact gacctgtct ttaatgtctc agtggcatcc agggatcagt ggaacattgc 1980
ttttagaacc ctctgtctgt tacggaggca gcacaaagct ggtgaccctt gagccaacac 2040
ggcactggga tggctttcta ggacagaacc ctgtcggcga ctgtcacatc tcaactaat 2100
agctgatttt aaaagccagc agcagcgacg ccatgtacct gactacaggt ggcagttgca 2160
gagccgtggg ctgtagaagg tcagatgggg cttcccacag gggaaatctg ggcgtgtgt 2220
agctcagggg gactcccagc tccgtcacta gcagggcgac ccccttctt ctggagcctt 2280
agctctgaaa gccccagtg ggggtgccct ttcatgtgcc cctttccat ttcaaggct 2340
ctgactcttg atcttgaagc cggacggggc actggcactc ggcttcagtt tccactgtga 2400
cagatggagg tctcctttcg cccagcccca ggtggccaag cccatcctgg cctcagaaca 2460
tgctgagcac atttttagtg gtggcacctt ttatccaag ttactagcta cacatcagt 2520
tttaagaga aaaaagtgc ctttcatttt tttttcttg aaacttgagg aaacaagata 2580
catactactg attttttttt tttcttaaaa ctaaatgcag gactgcagag cggtagaggt 2640
gtatattttt catactgtgg ggcaaatat tctgtgtgct ttttggagat ggactggaac 2700
gtctggtttc tgtccccggg ccgggcagct acgtctatct tctgtagaag gtgccacagt 2760
gagacctgga gccacccctt cctgccttg cgccgtttag agctgggagc ccgtggactc 2820
ccggcctgtt tctacctct attcaaccac tctgacgtgg ggagacaaga agaatagaa 2880
ctttttgata gtgtggtaaa aacattgatt tgaactatct tagtaaaagg agtaacaaac 2940
aagattgtga tagtgtctac tttgagctag ataaataaag gcctctttgt gaggcct 2996

```

&lt;210&gt; 180

&lt;211&gt; 1317

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 180

```

gaggtgaact tggcctcctg ccagctagat cctgctgggc tgcgcacact cctgcctgtc 60
ttcctgcgtg cccggaagct gggcttgcaa ctcaacagcc tgggccctga ggcctgcaag 120
gacctccgag acctgttget gcatgaccag tgccaaatta ccacactgag gctgtccaac 180
aaccgcgtga cggaggcagg tgttgccgtg ctaatggagg ggctggcagg aaacacctca 240
gtgacgcacc tgtccctgct gcacacgggc cttggggacg aaggcctgga gctgctggct 300
gccagctgg accgcaaccg gcagctgcag gagctgaacg tggcgtaaca cgggtgctgg 360
gacacagcgg ccttgccctt ggcagagct gcccgggagc acccttccct ggaactgtca 420
cacctctact tcaatgagct gagctcagag ggccgccaag tcttgcgaga cttggggggg 480
gctgctgaag gtggtgcccg ggtggtgggt tcaactgacag aggggacggc ggtgtcagaa 540
tactggtcag tgatcctcag tgaagtccag cggaacctca atagctggga tcggggcccg 600
gttcagcgac accttgagct cctactgcgg gatctggaag atagccgggg tgccaccctt 660
aatccttggc gcaaggccca gctgctgcga gtggaggggc aggtcagggc cctcctggag 720
cagctgggaa gctctggaag ctgagacact ggccggcaggc acctagctat gtgaccactg 780
gccctaaacc ttttccctct gtggcctcct ggcttgcaat gctccctcta gaaagattcc 840
ttcaggctctg gaggcagagg aatgggcata gctgagccag ttgcccctct agggcatgtt 900
tgaccaggac tgagtctgga atctccaagt taaagatggt gaatcaatgc ttcggggctt 960
gagatggaac atgcctctc tccattcagc tagaaggacc aaagcatgtg gcatttggat 1020
ggccagagtg ccctgaagca ccaactacca ccttgccctc ccctcctctc aaagagcctc 1080
tgattgtgtc accaaggggc tccatcttta tgtctgcat gccagggggt tcgccatcca 1140
gatgtgttg aagcttcccc tctgcctta tgcctacctg tggacaccga ggatgccctc 1200
acattggtgc tttctcctca tctcatgcc ccttttgcca caatggtag atggcttgg 1260
agccccctga ggcagatgca cctgacttgc tgctattaaa aagccgtgtg ccttctt 1317

```

&lt;210&gt; 181

&lt;211&gt; 791

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 181

```

caattaggca cttccaaggc tttagtagag agagccactt tagccctttg tgccatgttt 60
gaaatttgcc cttgtattaa atccttgatt ttttccatt tggtttgat gcccttgatc 120
cattgtttcc ttctactat aatgtgcttc atctgtgaca ctttctcttg aactctgatt 180
ggattcactg tgcattgctc agtgggatct gctccacctt tcagtgcacat ttaagacatc 240
atattcccg t aacattatgt ctcagtctga tcgtctttac cagtatgaaa gtcattcatt 300
tagtgcctac aaaggggata cacaagccct ttaggaagca gtacctctcg cctggaggat 360
ctgtgccatc ttggattgag aattgcagat gtgacagaat ggattgaccc tagttgggtg 420
gtattgatga cttcagcctg gaaattgctt gccttttaaa gaagcatata tgggttgga 480
ttatgccaaa gcataggaag ctgggaataa gcaaacaaat gctgatatag tcagcaaat 540
tggatagtct ctagggctca tcatttttca tactacctct ctcttctggc ctgtgtctaa 600
ggaattgtac aacataggcc agggccaaca agtggagag gtggacacat tttcatgttc 660
attactaaaa caaacagcaa aactattggt ttgttattct gtgttttctt caagtcatga 720
catactatct gggttcagga tttctttcca tttctctatc aagcattaaa taattgagaa 780
ctgtttcttc a 791

```

&lt;210&gt; 182

&lt;211&gt; 1226

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 182

```

atttgggttc atataacttt tgatattttt ctgcatgtgc tcataaatga gtactctgtt 60
tacctgtgta tttctaagtg gtatcatttt ggcttctct tttacagcat gccagggat 120
tgtctatttc cctcctctca acaaaccatc atggatgtct aattactcat gatctgattt 180
agaagtcacc acatctgtgt cccaccagcc tgcggtgcc atgactgtgg tggtagaaga 240
tgtggttata ctcagtctta cactggaaga tcattcttga ttttagatccc tacagctgcc 300
tgctgactga gtgactttgg ccaagttact tgactattgt agtagcattg tttccttacc 360
tacaaaatga aaattatagt ttctataatg ctgtcttgag gattgaacga gatgatatgc 420
ataaagcact tgacagagta cttggcatcc tcctgggtcc caagcccacc agtggcattt 480
ccattcctcc cagtgtctag cccaaatgtg ttgggttttg ttttggtttt gagatgagat 540
ctcacttcat cctccagggt ggagtgtagt ggcatgatca tagctcacag ctcactgtag 600
tgtggaactc ctggactcaa gtgatcctct gaccttcttc accacatcta ttgctggcat 660
aggtctaacc accttcatct tttacctagg ttattacctg gtcttgcttc cttttagtgg 720
gcttttagta catcttctct cttccacctc atatggcatt aaagccagtg tctcatatg 780
gtgacctacg aggtcctccc agacctcatg ccctgtactc ccttgatgat caacaaacac 840
cgacacacac aagcctctgg aattttctcc cacagataac ctcttggttg acccatcata 900
cagaggtaga ccttctctga ccaacttagc ccccaattct aacctccctt cccccagtga 960
gactctcact tagttttacc ctttagcact tatctaact gctctatatt ttacttattt 1020
ctttacctgt gtattgtctg cctctttcac tagaacacag gcaccacaag ccaggatgtt 1080
tgtccattct gttcactgct gtattccgca tgtttagaat agcacatgta tattcattgt 1140
gtgaatttta atagacacta aaatttatta agtgttgac atgctagtta ctgtgcctag 1200
aattcaataa atgttagtga ctgctt 1226

```

&lt;210&gt; 183

&lt;211&gt; 1342

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 183

```

aatagtcact cgtaaaaact gtcagtgtct gaaactgttt cctttactca tgttgaagg 60
actttgttgg ctpttagagt gttggtcatg actccaagag cagagcaggg aagagccaa 120
gcatagactt ggtgcogtgg tgaaggctgc agtccagttt tgtgatgctg cttttacgtg 180
tccctcgata acagtcatgt agacacactc aggaggacta ctgaggctct gcgaccttca 240
ggagctgagc ctgcctctct ccttttagatg acagaccttc atctgggaac gtgctgagcc 300
agcaccctca gatgatttcc ctccaaactg ctgactaggt catcctctgt ctggtagaga 360
cattcacatc tttgctttta ttctgtgctc tctgtacttt tgacaaaaa ttgaccaaag 420
taagaaaatg caagttctaa aaatagacta aggatgcctt tgcagaacac caaagcatcc 480
caaggaaactg gtaggggaagt ggcgctgtc tctggagtgc gaagaggcct gctccctggc 540
tctgggtctg ctgggggcac agtaaatcag tcttggcacc cacatccagg gcagagaggt 600
ctgtggttct cagcatcaga aggcagcgca gccctctccc tcttcaggct acagggttgt 660
cacctgctga gtccctcagg tgtttggcct ctctgggtcca tcttgggcat taggttctcc 720

```

```

agcagagctc tggccagctg cctcttcttt aactgggaac acaggctctc acaagatcag 780
aacccccact ccccccaag atcttatcta gcaagcctgt agtattcagt ttctgttgta 840
ggaagagagc gaggcacccc tgaattccac gcatctgctg gaaacgagcc gtgtcagatc 900
gcacatccct gcgcccccat gcccccatgc cctctgagt cacacaggac agaggaggca 960
gagcttctgc ccaactgttat cttcactttc tttgtccagt cttttgtttt taataagcag 1020
tgacctccc tactcttctt tttaatgatt tttgtagtgt atttgcctga actgtggcta 1080
ctgtgcattc cttgaataat cacttgtaaa aattgtcagt gcttgaagct gtttccttta 1140
ctcacattga agggacttcg ttgggttttt ggagtcttgg ttgtgactcc aagagcagag 1200
tgaggaagac cccaagcat agactcgggt actgtgatga tggctgcagt ccagttttat 1260
gattctgctt ttatgtgtcc cttgataaca gtgacttaac aatatacatt cctcataaat 1320
aaaaaaaaa caagaatctt ga 1342

```

&lt;210&gt; 184

&lt;211&gt; 2633

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 184

```

tgaataattg ccatgttaag ttaatgcaaa agatcagaac agggctacat ttgcacaggc 60
agtttctctc cgggccgtag ttttctactga tgatcacctt tcacagcatt ttcccccaacc 120
agcatttcac ttagtcttct ctatacccag cactcctccc ggcacccccg gcaagccac 180
tatcacttcc gacttccaac gtggcatcog tgagatctgt ccacattagg cgaagcagga 240
gaacactgag agcagcagga tgggttttga aagagcatgc ctctggaaac acagcttctt 300
gggaattcac atgaggccag tccacagag agcaagatgc accccaggat ttcttctatt 360
tctaatagat gtgggagtgc tccattttcc ccgacagcga atttcccctg agaaacgata 420
ctagaccctg ggtttgccc ccttgtaact cttccttate tccctccttt catcccta 480
tcacctccc tctggcatgg aattgacgcc cgtgcagtac atttgccaag tggcaccttc 540
tttcaattta tgttttattt tgctatggtg gtgattcttt atttgcctgt tgtcttttct 600
cacacatctt tctctctgtc tctctcttcc ctgctctttg ttttctgcc cagaaaaacc 660
tgacttcgat accaaaaaag atgaaactac agaaactcaa atttaaaaaa aactttaaaa 720
gaaacaaaaa aatactcaac gatctttcag ctttattaac attttccatt gtttctgctg 780
acttgtgtct cgttctttgt agtattgatg atgaacattt gataatgaat gttctgttat 840
attcagataa agaaaaaaa aaacccaaaa agcggctctga atttaatagt gtttataata 900
aaaattttta aaatgacct catagcacgc aaaacaggat ggggaatttc cctcttctt 960
tctgtgacaa tgcgcatcat tctgcatta gtttttaaca ccagactacc tacattcatc 1020
atttccctca ttttctttt atttcttgc atttgtgaat tagttcaaga atgctagaaa 1080
agtgtcagat tgtgcacatc catttcttgt ttcacaatgt ttaaaagtga cagtaattca 1140
ttttgtaaac taataaaaaa aaaaaaaaag gttggaatag tgagcataat aggtacaacc 1200
taacacatta ttatgtttat taactttgag acccagaaat aaattctttt ctttcttga 1260
ttctgtctct taataataca aaaaaaaa tgttttgtt tgtgttattt ttgggttgtt 1320
tattgggggg ctttttttta attgcaggat tatgatcttg ctgtttttct tcaatatgta 1380
tacaaggtga tgtgaaaaga tgacttgggc agaggagtaa gaacaagtag gcttgttctt 1440
ctactttgct tcagaattca gttaatgcc aaagcgaaga tcaagcccat gttgatgtct 1500
cgttgcctac ctgcatttcc agagagtgtg acactcatgc agtccctgag aaaaaataaa 1560
tcagggacat acttctcctt tttagccttt aaaaattcaa aaacgtttag tccaagggaa 1620
ctttttatgc tatcaggaag ggtttttgct gtttttgatt ctgattatca cagccaagta 1680
ctttgtttta tttctcccta attaaatact acattccatg aggcctcttc caaccaaga 1740
ggccttttct tccaggagag tcccgaggga gatgctggta tgatgggcac cattggttaa 1800
gtaaactaca tgcaggaaga agtccttggg gccagtctgc cagctgagtc ctgggttttg 1860
atgaagagtt aatgagatat tgggccaggc tcaatgctgt agttttaatg ctaagaggtt 1920
acgtttaact cacagagtac acctcttagt aacctctgac ttaggcagct gcttaaaagca 1980
aattgcaaaa ctggcttgat ttggaatgtt tttattagag gaaaaaagaa agccatatta 2040
tctggaaaaa aattcatttt aaataccatc attcaacaaa ttatgttcag aaagtgttca 2100
gaacttaagc aagaaaagta aagaaagaat gcagaattgt ggagcaatgc tttaggaaat 2160
atttctacct gaacacttgt actcttgaag tcacaacaaa ataataatga gcttttcaca 2220
tcacctttat ggtttcaatc cctagctcaa agcttcctgg aatcttttat tttttgtaa 2280
cttttttttc ttttgtaaa ataaataaaa cattcaatgt ttttctcctt ttctctctta 2340
ttacttcttt cttttggcat tttcaatttg aaatgctttc ctttgggtgt tgggtttatt 2400
ctccccctac cctccccctt ttcttattat tcagaatata aacctgcaaa gctctgctct 2460
gttttgggtt tgaagttta agcttttctg cttctgtgag agcacaggct tctgtccctt 2520
ttgattccaa ctgaactttt gtgttctcta atgatactaa cacgggtgtg gttttacagt 2580
ctcctaattt gtactggtta tgcataattcc aaataaatag tttcttttgt tgc 2633

```

&lt;210&gt; 185

<211> 761  
 <212> DNA  
 <213> Homo sapiens

<400> 185  
 caattacaca ctgattgctt tgtgtctcta aaagtgagag gctggtagct tttccacatt 60  
 ctcattggcta ttttctagtt ctacttgaat ttataactgt ttcccttttt ccttgacagc 120  
 tgcacttttg tagctatttt tctgtctctg ctaatacttt accatatcta tctcaattgt 180  
 tttttctttt gacttgctga aaaatagaaa ccagatggga agtatattag cattatgatt 240  
 gaaataaggg taaatgagca atgtgtgaag gttttcactg acttcaccta aaagatagtt 300  
 tagctacttg aatttttagta aatagaattt ttccctttatt tcatoggtcc cccacacctt 360  
 tttttttttt gcacctgcct tgtaaattta atagttaagt gacctctgcc tagaggatga 420  
 tatttgggga gggttgatgt ttccctgtggg ataagacgat tccacaggtga gagggtggcc 480  
 acattagctg ttattgtttc catgggtcag tgtggaaaat gcattaatca tattctaac 540  
 gttcattggac ctacattacag tcacaattgt ctattctgtt tcctaccctg aacacattaa 600  
 aatggtagga actaatgctt gtcttattta attactaaaa gccaccattt tctttgatag 660  
 attgagctac agattgtaaa ctcatgtat ttctttataa gtcaaccctt ttcaaagata 720  
 tgcacatcaa actgaatgaa taaataaata ttgagaagtt t 761

<210> 186  
 <211> 1127  
 <212> DNA  
 <213> Homo sapiens

<400> 186  
 tgacagtttg ttaataacta agtactgtta attgaactac ttattattgt tccctataga 60  
 tataaagcag ttcagaaaag attttgcttg catgtagctt ctggtagtac actgtgaatg 120  
 cactaattat gaagctcagg tttatagaac caagatgaat tcttgagctt ggagtaaagg 180  
 ttgtagaatc ttgcttagca cagcatctca ggacatatct atacttggat ttatatgaca 240  
 caagaaactg aatgatgtcg gcttcttgaa aggtatgcgg ctcataaaaa gcaaccagca 300  
 ggaaatcaga aacaggaagg atgatgcttt gttggaaaca atttttcatt ctgagtacaa 360  
 ttatactcca tggacaagaa agctactaca tccgtgcatt aaatatacaca acctagaagc 420  
 ctctaataaa ctgattagca ttcatgtatc tcttggaggt cagatatatg aacagttggg 480  
 gcactttgct attgacaaag cttataatca taaatattct ttgctgagat tagattgcac 540  
 tctgttgctt ttcatcttag ttagacatac tagtttcgaa gtaattaaat tcattcattg 600  
 cgagtctttg tttacattaa ttaggactga catgtcagat tttgcatatt aatgcattt 660  
 atacagatct tattaataatg gcaattgtg agcttcttag atgttaaaaa attgaagaat 720  
 ttggaagcta aaatgcacaa tgaataaaat atacttaaaag tttgttatta accacttaa 780  
 ctttggtcat gtttttcatt gaaatgctta ttcatcgagg tacatatcaa atgtttgggt 840  
 cattcaccaa ttctggaaga atatgtgtat ttttaaatgt gtttaacaatg tatcttaca 900  
 gtacgtataa ttataattta gtgaactgtt aaatcaatta attgaattgt tttaaattat 960  
 taagatacaa ttttattgta atgtgaaatt ttactaatag cactcgatga tagtatgttg 1020  
 tattttttatt ctttctgtgt atgttactc tttacatata ctgcttaata ttaaaaaatt 1080  
 gaatttagtg catcctttaa aaaggatgca ctattatttc aaatatac 1127

<210> 187  
 <211> 1347  
 <212> DNA  
 <213> Homo sapiens

<400> 187  
 gtataaaaaa ataaaaagaa actgaccagg cgaggctggg tgcgggtggct cacacctgta 60  
 atcctagcac tttggaaggc cggggtggga gggctctctg agcccaggag tttgagacca 120  
 gcctgggcaa catagtgaat tcccatacta caaaaaatta gctgggtgta gtggtgcaca 180  
 cctgtagtcc cagctactcg ggaggctgaa gcaagaggac cgcttcagcc ggggaagtca 240  
 aggctgcagt gagccaagat catgccactg cacttcagcc tgagcaacaa gaggtagacc 300  
 ctgtgccaaa aaaaccctc aaaaaacat gttgggaggg ctgcatcagat taggggagga 360  
 aggtcatttg tgcaggaaaa aaagcagttc taagcctcac tgggttccag tgggtggccag 420  
 atttgaactc agcttgcctt tggccctgac cccagctcaa cccatgggtg gtgggtcaga 480  
 gggagggcct ctgtcccccag gcagtgcctt tgggggttcc tccagcttct agtcccttct 540  
 tggggccctt gttttgttct tctctagcag ttgcccgcga tgttggggcc agggccagtc 600  
 ctgtgggtct gtttgacac tcaggacaca gacttggatg tttgtggagc tccgtgttca 660  
 cagggggctc tggacttgac caggggagtc cctgaggctg tgcagccctt tgggtgtctc 720  
 cgccttcccc ccgcccatt cccccagtg gcagcggttc catcgagtg aacgccgact 780

```

cttcggtgca gttgttgccc gaagaggccg tgacgctgga catgttggac ctgggggag 840
ccaaggcaaa cttggagaag gccaggcggg agctggtggg gacagctgac gaggccacgc 900
gggacagat ccagatccga atcgaggcca acgaggccct ggtgaaggcc ctggagttag 960
cggtagctac ccggtgtccc gagggccggc caggggctgg gcagggatgc cagggtgggc 1020
cagccagctc ctgggggtccc ggccacctgg ggaagccgcg cctgccaaag agggccacag 1080
agggcagtg aggtctctgc ctggggccca ggccctgcct gtgttgaaag ctctggggac 1140
tgggcccagg aagctcctcc tcagctttga gctgtggctg ccacccatgg ggctctcctt 1200
ccgctctca agatccccc agcctgacgg gccgcttacc atcccctctg ccctgcagag 1260
ccagccgcca aggttgacct cagcttcgga gccacctctg gatgaactgc cccagcccc 1320
cgccccatta aagaccgga agccttt 1347

```

&lt;210&gt; 188

&lt;211&gt; 1666

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 188

```

aagtgccttg aagagaagag caggcctcag acacctttta attgcttagg agaaaccatt 60
gtctctgact gcaggtttga ataagttgaa gaccagagaa aagtacacac tgggctacaa 120
aggaatttgg agatagccaa ggaacaggat ttcccttagc aagctacctt ctgttcaaat 180
catgaaaaaa gactatttcc ccttagaata ggggaagcttg ctattttaaa gctctgttag 240
tgcttttctt ttaagggaga ttagtagaaa gggaaaatgt agctcttagt ttacacttca 300
aagatgtggg ggtctttcag agaactaaga ataacagttt tatgtgcaga gagagtttgc 360
cagatctgaa gcataacct cattgactag gctgttactt tgggataggt tgcagtacca 420
gccacagcca gcagatagag gaaaagacac acataaactc gcttctgagc gtccacttct 480
gcactctctg ctctgctgtt actcagcccc tgagtctgac tcatctctgc acaacctctc 540
tgtgccatga agataagtc tccatggcca aatcggtcat ccgcactgcc cttgggactt 600
ccgaagtga ccattccacc agaacctttg attctgcaca agatttcctt gctctgggaa 660
caacccccc aaatcccttg gaggaacaac atgagctcag gaagcctctc tttcttcaact 720
taccattact aactctccaa gcatagaat ccctgggaat tgcgagaata actcccacta 780
ttttaaaatt tatattcaga tttgtttcgt ttcataagac acatcaaaca ggcctataca 840
aaaggtttag gaaaagaaaa caatggtgag tcccggccct ctgcgaattc actggcacct 900
catgcaagt taggaaggca cgtggatcg tctatctgat tccaaagctg tcccttgcca 960
tctcatccct tggcctgccc cccaacctcg aggatgcccc tgccatcccc ccaacctcct 1020
catattgcct ctgaaccag atggcaatcc atcccggctc tctctgaggg ccacgggctt 1080
gggtagtgga aaggggtgtt gggaaattgt taaatcagtt acccgtagta gagctatttc 1140
ttgtacttct aagttttcta gaagtggaa gattgtagtc atcctgaaa tgggtttact 1200
tcaaaatccc tcagccttgt tcttcacgac tgtctatact gagagtgtca tgtttccaca 1260
aagggctgac acctgagcct ggattttcac tcatccctga gaagccctt ccagtagggt 1320
gggcaattcc caacttcctt gccacaagct tcccaggctt tctcccctgg aaaactccag 1380
cttgagtccc agatacactc atgggctgcc ctgggcagcc agcattcatt gtaagttccc 1440
tctttgaaaa ctggtgtgtg ggtgttcagt tctgtgtctg gtgggtatgg acagacagta 1500
atctcctgtg atctgtgcta gctgtgaggg agctctggaa cgtgaagagc tgtttgggtt 1560
gaaccgtgaa caaaactgtg ttttgagttt agctgacatt aaagaaaaaa gttcatcacg 1620
tgactgttaa tgtaaacctg gttattaaaa taactatgaa attacc 1666

```

&lt;210&gt; 189

&lt;211&gt; 1242

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 189

```

aggggactga agggtttggg cggatcgaa gcacccgtca aaaacggaaa ggagaatatt 60
gcagtccaag acagggtctc ggccagggtt cccagaaaaa agaacctgag gccaaactaa 120
agggctactg gatctgagga gctgcgattc cagggtggag agaagaagga gaagggagga 180
gaggcaggga gagagggaaa gccagtcaca gatggtgcag ggctgtgctg ccgctgtttc 240
acagagaaca gggcacagga cctcgtgcca ctttgccaca cggagggaca gagccggtgc 300
ctcgggacag tcccctggag ccaggaggag agagggaagt tgggtgtgac tccccctctc 360
ctgtctcaca ctggttagagt atgtcccatg gaccatagct tccacatgct aagctgtgct 420
actggtcccc tctggcagc tgcgtcaagt atcaggctct gtgtccagga cttcctcagg 480
gtcagggaagt ggcagttgga gccagcaact cccaggaca ggaaggtgat gcacacgccc 540
acctgtggcg agggcaagga aggggcaggg cctacagaag agcagtggca gctgtcgtgg 600
tggccaagat caggctgttc catgagcaac gaccagggcc caggacactg ggaggccagg 660
ggaatttgag aagttggcta cgtagtccca gatccaaaat gcaatgtgat tctggcaggt 720

```

```

ctcgcctcctc tatgcatttt taaatcttcc cggctctatg agtaactcga tgggttaatat 780
tggtttgactg gataaatttc taacaaaaac aaattttatc attggagagg aaagtcagaa 840
ctcaatctca agtccactaa caggactgtg taaccatttt catgtatatc atgatttact 900
atagcactaa ctatggacct gtctcttatg ggtgttacaa atatcaactt gtttaacaac 960
catcgcaaga gccagcccggt gtggtcccat tccggtcgca aagcccatg cccaccctg 1020
ctatgctgtc tctttgtttg ttgaactttt cgctgatgga acatttgtat catcttagct 1080
ttccgtggga aaaagaagtg catgcctcat ggtgggcccc catttccacc tgagacaaag 1140
gcgttctgat caggtttctc tcctcttgcc attaaccagg gaccagagaa tttgttttgt 1200
ctcagacctt gaaactttta gatcaattaa agctagtttg gt 1242

```

&lt;210&gt; 190

&lt;211&gt; 1956

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 190

```

ttaatgtagt aggggtttata tagatatact aatataattg catttggaga attagagtat 60
gtatggagcc caccatact gtgatataaa gtgtatatac agatatttgg atatttttcta 120
gtttgcatga tgattaagag aaccagatgg gaaaatacaa tctccaaagt gatgtttatc 180
ctggaattac ccaatttaga ttagagaggt tgttcaaatt taactagata actctagtgt 240
gtactgtata ggtgcagtta tgacagtaaa aaaatagcct cttggctcat acctgtaatc 300
ccaccacttt gggaggccaa ggtgggagga ttgcttgagc ccaggaattc aagactagcc 360
tgggcaacat aatacaggga gaccccggtt ctattaaaaa tacaaaaatc agccagctgt 420
ggtgacacat gcctatagtc ccagctactt aggaagctga gaaggaggga tcacttgagg 480
ctgtagtga ctataattat gcctgtgaat agccactcta ctccagcctg ggcaacatag 540
caagacccca tctctaaaaa ttaaaaaaaa aatttaaat agaatatcat ttctagcatc 600
ttaggtaggt acttatatct ggcttacaga agtctaaggt attccttatt tttatatctg 660
ctgtccacat ttatacagct acataaaaat ttatgacaa cttcaacatg aaccttatat 720
tttcgacaat gccttgccaa ggaatctctg aagtcocatag caggtcactg tgagacctag 780
ttccctgttg tcactgacct atgtaatcaa agacagtaat acagcctggg aaacatagcg 840
agaccctgtc tctatcaaaa attttaaatt acccaggcat ggtgacgcac acctgtatag 900
taagtgtcca agttacttgt gaagctgagg tgggaggatc acttgagccc aagagtittga 960
agctatgggt agctatgatt gttccactat actccagcat tggcaacaga gcaagaactc 1020
atctctaaaa agtaaaaagc aactccccag aaagactgta tttctacaga taaatattgc 1080
attgagatgc caaatagagt gttgttgtaa agtcatcaga ctagaaaagca gacctgggga 1140
cagtgtttac cacctaagag gcagtcctgt ttttgagacc cacatctata tatagagatt 1200
tttgtttgtt tgtttgtttg ttttgttttg ttttgagatg aagtctcact ctgtcaccca 1260
ggctggagtg cagtggcgcg gtcttggtcg actgcaacct ccgcctcccg ggttcgagca 1320
attctcctgc ctccagcctc tgagttagctg gatttgcagg tgcgcactgc cagcctgac 1380
tgggttttgt atttctagtg gagatggggg ttactatgt tggccaggct ggtcttgaa 1440
tctcactcgc ggtgatccg cccatctcgg cctcccaaag tgctgggatt acaggcgta 1500
gccaccacgc ccggccagag atccacatct atatttataa cacatttatg gatgaaaatt 1560
aaacagggtg ccgggtgcgg ttactcatgc ctgtaatccg agcacttggt gaggccgagg 1620
cgggcggtat acttgaggtc aggacttcca aaccagcctg gccaacatgg tgaatccca 1680
tctctactgg aaatacaaaa ttagccaggt gtggtgtcac gcacctgtag tcccagttac 1740
ttgaacctgg gaggcagagg ttgagtgag ccgagattgc aacactgcca ctccagcctg 1800
ggtgacagag caagagaccc tgtctcaaaa aaaaaaaaaa aaaattaaat gggtagtgac 1860
gttaagagat atatatcagc ttctagtaaa agtttttttt tttaaacctg ctagctacat 1920
ttacattatg taaaaataaa gggaataatc actgtg 1956

```

&lt;210&gt; 191

&lt;211&gt; 1799

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 191

```

tattcttaag cgtttaacgt atctcattgt actgtgcact ccacctgccc tagcccatat 60
cacatataag cagaactaag tccctttaat tttcttaaca tagtacattc tctcgtgcca 120
ctgtgatattt ccaagatgat ggtctctctt tctggaaaac cctttgcctc tttatcttct 180
tgggttaattc atatctgttg ttatctaact agtgcagctg tcatctcttt tggaaagcctt 240
ccctttcttc atgggtctgca ccctgtacca gacatgacac ttactaaaat ttattgctgt 300
ggttcttaac cagggatgat ttgcccctta gaggacattt ggcaatggaa ggagccactt 360
ttggttgcca taactgggtg ggggtgggtat tgatgctact cttgtctggt gggtagaggc 420
cagagatgcc tttaaatggt ctacagtata caggagaggc tcccacagaa aagaattata 480

```

```

tggcccaaca tgtcaatagg gctgacgttg agactgttta ctgtatgtct gtcttcttag 540
attcatgagc cctttgacac ctatattccc tatgtgcaga cagtctggga catagtaggt 600
gttcaataaa tgggtgttga atgaataaat atttcttcta atgccacaat ttctatgttg 660
ttgtttattt ccttattatt tccatgtgtg tgaaaggacc aaagaccttt gctttttgtt 720
ccttgatctc tccaagaagg gactttgtct aaaccaatc agcccagaaa aggttgacta 780
ctggttatgg gcctagttaa atgactttgc ccaggaagggt gaccaccagt tctatgccta 840
gggtttctct ggaagatttg gttttgtctg tcttcttccc tctgagccta agtgtctgtg 900
tttccatcct cagggtatgt taacttctca atggaaattt aaaaattcca tactttcatt 960
tcaatggaaa tgagaaacaa attaaacaa gaatgttcca gatcctttgg ctggctactt 1020
atggattatg tttatgttgg tgtttatgat cgtatttgca ccagaggaca gccaaatgac 1080
atcctcaact gctaataaac agagtcattg tgattaaaca gaaaacagaa ttgggggaac 1140
tccaaactca aatgcctgca cgtggcgggt cagtacatta gcatcacctg caagcatttc 1200
acaggcctgt ctttggtcag acctgattgc aacaattatt ggcagtaaat acacaccaa 1260
caactttttt tttcctcta attctagaaa taagtgggtt aagatagcca ttcaaaactgg 1320
atctcaggag caccacaata caatctttcc ttaaaacagg aagaccactg cagagaacta 1380
ccaagtctga gacacctcac taccacagc atcagagaat gcttcgctga gagggtgttg 1440
gctaagtgtg aggcattgatt accttaaagt taattatttt ttgtaaaaca gttctatgtg 1500
aatagagaat ctatgtcatt aatatcaagg ttgaacacta aaacagggtga aataaaaaaa 1560
aaatccactt gtttgagggt gtttctttgt cctgtttcac cccaaatgaa aatgaacact 1620
atctctcaca ctacgttaca ttttaaattt gggcttggtt gttttttagt ttaatgtatc 1680
ttacatttgc aaatgtggtt tttgtacttg tataagacat atgcataagg aattgaagtc 1740
tattgttata cttgtatata ttaaaataac attaaagtaa gtataactta gatcaacct 1799

```

&lt;210&gt; 192

&lt;211&gt; 1298

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 192

```

aatactattt ttgtttttta gatgtagcct tgctctgtca cccaagctgg agtacggtgg 60
tgcatctca gctcactgca acctctgcct cctgggttca agtgattctc ctacctcggc 120
ctcctgagta gctgggatta caggcatctg ccaccaagcc cagctaattt ttgtattttt 180
aatagagttg gagtttcacc acgttggcca ggctggtctt gaaatcctga cctcaagtga 240
tccaccaccc tcggcctccc aaagtgcctgg gattacaggt gtgagccatt gcaccagacc 300
aaaaatacta tttttttaag agcctttagg attttgtgat agtagataat tgaatgtgaa 360
tatgtcatt gtgcaaaatt ccaaaaatat gtacagaaat agttaagaag tggaagattc 420
ttactcttct cctcccacac acctagatag agctattctt aatactgaca cacatttatt 480
ctagaaaatt tggaaaatac aaaatcccat aaaaaataaa aatcacacat aatccgcca 540
gccatagata taaacaagtg ggtttttttt tttccaatga atatttttct gagegtacac 600
cagcccttaa ataacctgtg gttaccttta agaaaaacga aaccaatgga attgtataat 660
gcattaaaac cattagaacc aatttacctt catggaaggg gtcaaatatc ccgggtgagg 720
attgaaagag aaagaccgat tccggtggga catggcactg ggaatgctg cgtagtga 780
tcttctctct tcctagaaaa ccaatacaac tgagtctaaa tgagcctaac cacacagcac 840
tgggtttgac ttgaaggaaag atggctgtga gggcagaata gagaaggaaa gtccagggga 900
gggaagggaa gtacgtggga ataaagctgc caggcactga agcttttgag gaagcacctt 960
tgcttttttt atgtcccccag cccctcttgt aaagaaaagg gcaagctgat gccttaggaa 1020
attgaaaatt caactgttct tagcatgtga aggtaaccta atgcagaaag ttagtaatta 1080
aggcaaagaa agaaaacccc caggtatgca aaggattttg ccgcctttct tctctgtct 1140
tgtttgacat ttgtgttgcc taacatatat aaacataggg agagtaatga aatccatccc 1200
cactttacct ataataacta tatggcogac cttgtttgtg tgtatcattt tccacttttt 1260
tctctcctgc tgtattatta ctaaatcca gttattac 1298

```

&lt;210&gt; 193

&lt;211&gt; 1342

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 193

```

gttttaaaata acattgcttt tatgtcaaaag cactttggta acttggcctc acatgctgac 60
agttttggct aaatattaca aatcttgatc ccagaagagc aagagagaaa gttttactaa 120
tatttgotta aacatcctgt ttaacaactt tataacatcc ttcggaattt ttaaggtaat 180
aatgtgagat ataagtatga taaaaacaac ttttaaattg tatttaattg aaatacagaa 240
taacgatgtc aacattttcc tcagccgtgt aacctgagat tcatcatggg aatgagaaag 300
taaaggccct ttgtaatggc atgtgaacca gacaatttag tagccagggt tgtaaggcaa 360

```

```

ctcttaactg acaatatagt tagtatatc tgggccttca tcttcaaaat tagtaggtag 420
tattttattga gtgcataatca tgtgccaggc ctgggtgctga gtgcttaca tgatcatttt 480
atatatggga aaattgagggc tcagcagggg caagtgactt gtaagaggta gcactagtaa 540
gtaacagtgc tcaaattcaa ctaggtcttt cagcttttta tacaatactg cctgttatca 600
gaaagtatag tcttaaaatc tgctatcaag catctatcag aagcctgatg agaaatattc 660
agatgatcta acgcagttcc caaacctgca ttgtgggccc ttttcattac aattacctaa 720
gggtgctttaa aaattttctt gggccctact cgttggtggt cagcagctgt gtaatggagc 780
aaaaaggaat agtcactaaa cagcgaagg aagtgggtga attattaaaa gacctagcac 840
ttacctgctg ggatgagctc ctaacccac agaattgatt tcaaacacag gatcttattc 900
aagataagga taataacagc tatcttcttg ggttgtaaaa agtagcatta gactgcattt 960
taaacatttg gtatgatttt gaggacataa ccgtaaacag ctatttaata ctattccagg 1020
tagtcaaagg ccaatgtata aaagttaaaa atataggtct tgtcagcttt ttaagcgtct 1080
gtcccactga ctaccatata tctacaagag aatagatgag gaattgaggt tatgtgggaa 1140
gtacgtgtaa gtttacagta ttaagaaatg tacaataaaa tttgtttcta tgtcagcgaa 1200
tattcttgac tcaaggagtt tgaaagtgt aactcaaagg tctttcacat gtaagagga 1260
acctctccat tctgtacttg tatagtcatt acctcatata gatttaattt tattaataa 1320
aattttactt attttgggtt tt 1342

```

&lt;210&gt; 194

&lt;211&gt; 1116

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 194

```

taagaataat gtaaattaaa accactgtga gctatcacct cacatctata agaattggcta 60
ttaacaagac atgagataaa tgttgatgag attgtggaga aaagagaacc ctagtacct 120
gtttgtgggc gtgtagactg gggcagccgt tatggaaaac ggtatggagg ctctaaaga 180
aattaaaaat agaactgtta tctgacctc ttctgagtaa gtatgtacct aaagaagatg 240
aatcaccag ctgggcgcag tgactcacac ctgtaatccc agcacttttg agtgggtgaa 300
tcacctgagg tcaggagttc aagaccagct tgaccaacat ggtgaaaccc cgtctctact 360
aaaaatacaa aaagtaggag ggcaggtgga cgggcacctg taatccagc tacttgggag 420
gctgaggcag aagaatcact tgaactcggg aggtggagggt tgcagtgagc caaaattgcg 480
tcactgcact ccagcctggg ttacagagca agacgccatc tcaaaaaaaa aaaagatgaa 540
atcatcacct cataaagata tctgcaactca catgtttgtg gcagtgttat tctcaatagc 600
caagatgtgg aaacaacctc aatgccatc aatggacaaa taaagaaaat acggcatatg 660
catgccgtgg aatagtattc atccttggaa aagagggagt tcttgccatt tgccacaaca 720
tagatggacc tggagaacat tatgctaagt gaaataagcc agaccaagg aaaaatactg 780
catgatctca catgtggaat atttaatttt ttaagaaaga gctcaagtac acagagaaaag 840
agataaaaatg aacaagtcta gagatagggc taaagttaat acaattgtat tagggatttt 960
tgtaaataaa gtagatttta gctgctatta tcacaaaaaa actgagatga taatgttaat 1020
ctgcttact atagcagcca ttttattatc tatatgtatc ccataacatc atgttgtaaa 1080
tcttaaatat acctaaataa ataaaattgt cccccc 1116

```

&lt;210&gt; 195

&lt;211&gt; 2831

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 195

```

tgagatgat cccctgggccc cctcagaatg catttctgt gtccacatag ccgagattgc 60
gccactttac tccagcctgg gcaaaagagc caaactctgt ctccaaaaaa caaacaaca 120
aaatagaaaa taaatacaat ttttaaaaag acccagtc tcatgcagggt tacactgtgg 180
ggataacact tctgggctag gagggtggca acctgggttc aggcaccgca cccctctgc 240
cggtgcaca gggccctct cccctcagtc agcctgggc cctgcagggt ggacttttgc 300
ctggtagctt tgggctggcc ctccctctg caggggaccc cttgtacaga tgggtaagca 360
gaggcacagg ggcacaggca ggacagggc tctgctcag caggatgcc tggccagtcg 420
tgggcctact ccatccttga tccctccctc ccaagggcac ttgccatcca ggccgaatg 480
gcaagaggcc cctaaggggc cccagtcct gtcggcacc cctttgagt actgacagg 540
aggcagggga gctggcagcc cccatcccca caccagcttg tggaaagctac cagcgatcgg 600
tggggcccca ctggcagccc gtccgtgtg ccttggccgg gcccccaagc ttcttagaat 660
gccatctaag aaggcagagg gggatgagcg gcggcgggga ggaggggcg ccttgggaag 720
atccactggg tccagggaag cgaaggccgg acctcctcc ccagcgcta ctgcccgggc 780
cgaattccaa ggccagcggc tgcccgctga gaaggaatcc ggaccaacgg gattctggct 840

```



```

tccctetggc cctcctggc gagagcggc ccgggaggag ggggcctcac aagggcggg 900
cagggcgggg gcccgcggg taggcggagc tcccaggaaa acagcgggcg gggcctcgcg 960
cgagggcgcg ggttggcgcg gaggcgtccc aggaccccca ttcctccctc cgccccgggg 1020
cttctgggga gcggcgcgagc ttgactgcc cgcactggcg gcctccctgc cctacaagcc 1080
cccacccccg ccccccttg ggacctggcg aggagtggc ccgcaaagtt ggggctgggtg 1140
cggggttaag gggattacaa ttttcctagg acttagtggt ctgaagctgc ttttgcgatt 1200
agaatttata ttacaatgc tgataacaat aaactaccca ggctaccgcg ccagctggac 1260
gggggtgggt gatggaaagg gaaacccttg gccaccagca gcctgtgata aggccaaagg 1320
tccctggctg gattgctgcc taggatgcct gtggtcccta cccccggcg gaggcgagga 1380
ttgactaatc cgaccaagca aggcctccag gctgggcca gaacccctc ccagtccctc 1440
cccaaagtct atgtccttg gctcagctg tctctcctg tccctgcctc ctgcactctac 1500
agaccctga gggccccctc tccctcagag catgcacgtc gcaaattctc aatgactgtt 1560
tggaggaatg aataaatgaa ttgtgaacaa atggtctgaa gattccagag gtagcctaata 1620
ggggccctgc tgccttgagtt ctaatcccag cccaccaggt tgttggtat ttggccctgg 1680
gcaggtgatt attctctctt tgcctctgta ccttgcccg aaaatgagga gaataccagt 1740
acctactgca taaggttgtt aaaggattaa atgagtgaat agttacaaag agcctggaac 1800
agagtgttca aagaaacaca cagccacagt attaaaaaa ttaaaaaacc atttctctcc 1860
aggcttctgc catcactctg tgtgacttca acattctacc tgcatgacct atgcagcacc 1920
tggccgctgt taccttgcca cctcactga catctctctc gcataggcct tccaccatgc 1980
cctgtacttt ctccccacta gaaatagccc tggctctgaa atgtgtttta atcatccac 2040
tttgggtcca ccagttccta gcctttgagc ttaggcctct cctccaggac cctccctggc 2100
tacgatttcc caacccctct cgaccttcca ttcactgacc ttgccacttt cttgcctcta 2160
gtctgcacct ctccccatcc ctagtgtgga ttccatcccc ttgtgaacgc tggcaccggt 2220
cctggcagag actcagtact tccactctct gaatgcattt cttcttccca ggcacaccag 2280
aagactacat ttccctagccc cccacccctc tgacgtgtct gggaccatgt gactccttaa 2340
ttaggtcact tctctctcct gggaggccct ctctgccctc tctaagtcta actagtggca 2400
aaggatctaa ggggaagaaac ctggcagagt tactagtccc aagaagcctg ggtccctgaa 2460
tcaccacatg gaagtctacg cgcccaccac ctgaatggac taaggaagct gcaggatgaa 2520
gacaacagca tcacaaggag gaagccagga tccctgtgtt accacaagga ggagagatgc 2580
ctaaccaaga ccgtctgcaa ggattttgtg tgagccagaa gcagagctgt atggtgttca 2640
gccactgaga tttgagggct gtttgttaca gcagttgacc tatcctgact gacacatcac 2700
atcattcctt tcccaccat gtgtctaaca tgctaccaaa ttgaatttta agtaaattag 2760
tacttataaa ttaagtacaa atgcttttca aattcacatg aatcttttgt aaaaaaactg 2820
gttgaattt t 2831

```

&lt;210&gt; 196

&lt;211&gt; 988

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 196

```

cttcgattcg gccctgcctc caccgcgcgc gggcctggcc ggggccccgc cccccaacca 60
gagctgggtg ccgggctgag ggccgcctcc cgcctccggg cgccccgtcc cgtccccagg 120
gggcctctgt cttcccatcc tgattcccgg gtccctgccc ccgactctag ctccccagga 180
ggcgggcccca gccagctag ggacccctct cggaggccgg ccgccccgga aggggagggg 240
ggggccgggg caccactg ctccctgcca cactcctgag atccaccccc ttctcctggg 300
caggaagcct gggagaggag gctgaattcc aggctggctg ggagtaggga ggagcggggt 360
gggcccgcctg gtgtggacgg ttgtcgggga agccaactag gagatgggcc agggagcggt 420
tacaaatctt cagtttcatt tgcggaggcc tagccgtgac ccgcgcacca ccccaaacac 480
ggatctgatt cccacttgac acactttccc actggtctta gtctcacca cccgaagcca 540
gcaacctctc gcgaaaact cacacctacc tatatccatc caccctgagc agccctccac 600
ccccaaatcg ccctccgacg accgccaccc ccacagttca gtctccccct cccatccctg 660
ccggccctcg cttctccctt ccccgctcgg agtcagtcct tctcttcaac cgccccacc 720
ccctagtact ggtctcagct tctccagcgg gctcagccc cgtccacccc caaccccgac 780
gcccctttct ccgcgccagt tctggccctt ctcccatatt tataagtgtc cggccggggac 840
gggcggtggg cgcgcgctcc ccggcgcgta tcgtaggcag tgtaccgtgg ccgtgcctgc 900
agagtgtcgt tgtcgtgtg tgcctgtcgt aggtgtgtga gagtgcattg tacagcatat 960
tttcatgaat aaaattgttt taaatatt 988

```

&lt;210&gt; 197

&lt;211&gt; 1015

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 197

```

gttcatcagg gatattagtc tgtaattggt tttgttgttg ttatgtcttt tcttggtttc 60
ggtattaggg tgatactggc ttcattggaat gatttaggga ggatttcctc attctctatc 120
attggaatag ttccagtga atttggtacca attcatcttt gaatgtctga tataatttag 180
ctgtgaatcc atccggtcct ggacttcttt ttgttggcaa tattttttat tactgtttgt 240
tggggtgatc agactcaaca ccaggctcgtg gtggctatga agtccgacag agtcaaaagg 300
aatgagacaa gacaagttaa gactacatac ggtgggtcca gggagccaac gctagtatgg 360
aggctgcgaa ggccctgagc tctgggaacc catactatct actggtaatc aaacaaagaa 420
gcatgtggtg aggacgtgtg gacatggggg taaacagggt aggacatgag gacattgagg 480
gtagaaaggc agtgggtgcat caagtgtagc tgtcacagtt tagcattatg ctctgctact 540
tgggataatg gagaacagggt tcttctaatt caagatacaa tcaatttatg attttgggag 600
agcaaggagc aagggggccag tgagctctga cacattccag aggcctaagag ggggtttatg 660
ccctgagccc tggattccat ccaagccaca aggggtttta tgcctcgggt ttagattgta 720
gtgctgtggg gcagccttcc actctttggc acagagcttg gtgttccata ggccacaagg 780
ggttttggac cctggacca ggacatgttc caagactctt ctacattatg tcagacaaac 840
aagccctgcc tcagcccttc taccaatact gtttaagtct cactgcttgt tactggtctg 900
ttcagagttt ccatttcttc ctgatttaat caggagtgtt gtatatttcc aggaatttat 960
tcattctctc tagattttct agtttgtgga aaaaagatgt tcatagaacc tcttc 1015

```

&lt;210&gt; 198

&lt;211&gt; 894

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 198

```

catattagga gaagccattg ttatagtaca tgacatggcc actattaaaa aatacaacca 60
ctcatgtggt aacaaattga aatataaatc aatgtataaa ccacaaattt aaaaacatat 120
tgtcttttat tcccaaataa actatactgt aaataacaga actatttacc aagttataga 180
agttgtgctg caccagttag aatggcaatc attaaaaagt caggaaacaa cagggtgctgg 240
agaggatgtg gagaaatagg aacactttta cactgttggg gggactgtaa actagttcaa 300
ccattgtgga agtcagtgtg gcgattcctc agggatctag aactggaaat accatttgac 360
ccagccatcc cattactggg tatataccca aaggactata aatcatgctg ctataaagac 420
acatgcacac atatgtttat tgcggcatta ttcacaacag caaagacttg gaaccaaccc 480
agatgtccaa caatgataga ctggattaag aaaatgtggc acatatacac catggaatac 540
tatgcagcca taaaaaatga tgagtccatg tctttttag ggacatggat gaaattggaa 600
atcatcattc tcagtaaaact atcgcaagaa caaaaaacca aacaccgcat attctcactc 660
atagggtggga attgaacaat gagatcacat ggacacagga aggggaatat cacactctgg 720
gactgttgtg ggggtggggg gagaggggag ggataacatc gggagatata cctaattgta 780
gatgacgagt tagtgggtgc agcgaccag catggcacat gtatacatat gtaactaac 840
tgcacattgt gcacatgtac cctaaaactt aaagtataat taaaaaaaaa aaat 894

```

&lt;210&gt; 199

&lt;211&gt; 1192

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 199

```

gtagacgtcg gccacgcggc cgaggcatac ggccagaggc ttggcctcgc tgcgaccctt 60
gaggcggtag acagcgcgca gagccgcgga gcagctcgcc gcgcaggcca ggccgtacag 120
cgtatcgggtg gggacggcca ccacggcgcc gcgcgcgagc tcggccacgg cggcccgag 180
cgcctcgggtc cagccggcgc gctccggggt cgcggcctgc acggccccgc tccccgggag 240
ccgcaacagc cgggcgcggg gggccgcggg agcgggactc ggcgggcgga agaggcgacc 300
gctccgggag ccagcaggcc cctcgctcaa cccacgctg gcagccaccg cggccctcat 360
ccccctgcac cgacgcgccg gagacatccg cccaggcccg ctccgggag gaagtgcgc 420
tcccagccag ctccgggtcc aggagactcg gcccgcctc tgcgcggggc agcttaaagg 480
gaccaacgacc cccaggagga ttgaaggaga ccgggagggt gccggcgtgg acccggggaa 540
ggcggggctg gggctcggcg ggaggccacc cccacagccg ccccgggagg agcgcgcccc 600
gcagctgctg gacgcggtg agcagcgga gcgcagctc ctggacacca tcgcagcctg 660
cgaggagatg ttacggcagc tgggcgcggc gcgcccggag ccggctggtg gcgggaacgt 720
ctcagccaaa cctggagcgc cccccagcc ggctgtctcc gccagaggcg gctttccaaa 780
ggatgctggc gatggagctg cggagccctg accatccccg agcagaatac cctgacttct 840
ctccctcccc agggccgggtg gctggactct gaacaactcc cttcagtaaa ggggccagtc 900
ttcactggca gtggctggta cttggctctc agcctggagt ggcagctctg ctacagctg 960
ggttcactcc cacttcatcc tggctgaaag cagtgtgtg ctttgaaatg cagccaatga 1020

```

```

ataccagtc tgattacca gatttgggca gaccagcagt gctcgccaga gtggtctggc 1080
ctgctatggg ggatccaggt ggtgttacat gtccatttca tgttttgggg gcttttagcc 1140
ccacaaaaca ccttcagtag agccttgatt aaaaggaaac ctgcagactc tc 1192

```

&lt;210&gt; 200

&lt;211&gt; 899

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 200

```

aacttataaa ataattactt tcccgccag tgagtgatgt ttggaaatgc gtggaattag 60
gattcatgtg gtttctaaga tttggacatg tcagaatttt gtgagtcatg gatggggctg 120
cttttgcagt ggggtgccacc tgccactgtg cagccctact tggctcagcc cttctcctca 180
gctgtgagca ctgtcctcag gagagtcaca gggcttgaca cctgactctg agctggaaca 240
gtaggggagc ggagaagaca ggtctcaaga aaagggtttt aagaagtttc atccccagtt 300
aagcagagtc catccttgac ttaaattccct tattacagca caactgtgta tctaattcta 360
cgatttagga gaatgttacc taggacattt tgatgtgtta agttgaagaa aggttaactcg 420
tgtatgaacc ccgagccatt tccctgttgt cctgaggagg aactccaggc ctcccatcgt 480
gtgccctaag gcctcctgag tccctggagcc ctgcctccca ctgcctgact tccctgccaca 540
cgggttaatgc tgcagcaaca ccgactgctt catcttccct gtgctccacg tggcttccta 600
cctctctcgc ctttgttctt gttgaagggt ctctctcag ctaattaact ctgaatcatg 660
gttcaagaca agcctcaggg atcatgtcaa tgggtgtttc cctcaagctt agttggcagc 720
actctccaca cttctgtggc tcagtgtatta ctgtattac tatatttact tgcataatgtc 780
agaatgatgt gatagactat ctctgtcact atgtgttgg gttcctgagg acagtgtatc 840
tatctgattg atttccatgt gtccactgtc tagcacaggg caataaaaaa tacaccct 899

```

&lt;210&gt; 201

&lt;211&gt; 3260

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 201

```

aattgataat agagaactaa gccaggaaga tgttgaagaa gtttggagat atgttattct 60
gatctacctg caaaccattt taggtgtgcc atccctagaa gaagtcataa atccaaaaca 120
agtaattccc caatatataa tgtacaacat ggccaatata agtaaactgt gagtagttat 180
actacaaaac aaatcagatg acctccctca ctgggtatta tctgccatga agtgccctagc 240
aaattggcca agaagcaatg atatgaataa tccaacttat gttggatttg aacgagatgt 300
attcagaaca atcgagattt attttctaga tctccctgaa cctctactta cttttgaata 360
ttacgaatta tttgtaaaaa ttttgggtgt ttgtggctac atcacagttt cagatagatc 420
cagtgaggata cataaaattc aagatgatcc acagtcttca aaattccttc acttaaaaca 480
tttgaattcc ttcaaatcaa ctgagtgccct tcttctcagc ctgcttcata gagaaaaaaa 540
caaagaagaa tcagattcta ctgagagact acagataagc aatccaggat ttcaagaaag 600
atgtgtctaag aaaatgcagc tagttaattt aagaacacaga agagttagtg ctaatgacat 660
aatgggagga agttgtcata atttaatatg gtttaagtaat atgcatgac taccctctaa 720
cagcaaaaca agtgctgttt ctttgggaagg aattgtatag gtgccaggga attcaagtaa 780
agaggcatcc agtgtctttc atcaatcttt tccgaacata gaaggacaaa ataataaact 840
gttttttagag tctaagccca aacaggaatt cctgttgaat cttcattcag aggaaaatat 900
tcaaaagcca ttcagtgctg gttttaagag aacctctact ttgactgttc aagaccaaga 960
ggagtgtgtt aatgggaaat gcaagtcaaa acagctttgt aggtctcaga gtttgccttt 1020
aagaagtagt acaagaagga atagttatat caatacacca gtggctgaaa ttatcatgaa 1080
accaaagtgt ggacaaggca gcacaagtgt gcaaacagct atggaaagtg aactcggaga 1140
gtctagtgcc acaatcaata aaagactctg caaaagtaca atagaacttt cagaaaattc 1200
tttacttcca gcttcttcta tgttgactgg cacacaaagc ttgtgcaac ctcatctaga 1260
gagggttgcc atcgatgctc tacagttatg ttgtttgtta cttccccac caaatcgtag 1320
aaagcttcaa cttttaatgc gtatgatttc ccgaatgagt caaaatgttg atatgcccaa 1380
acttcatgat gcaatgggta cgaggtcact gatgatacat accttttctc gatgtgtgtt 1440
atgctgtgct gaagaagtgg atcttgatga gcttcttctt ggaagattag tttctttctt 1500
aatggatcat catcaggaaa ttcttcaagt accctcttac ttacagactg cagtggaaaa 1560
acacttgac tacttaaaaa agggacatat tgaaaatcct ggagatggac tatttgcctc 1620
tttgccaact tactcatact gtaagcagat tagtgtcag gagtttgatg agcaaaaagt 1680
ttctacctct caagctgcaa ttgcagaact tttagaaaat attattaaaa acaggagttt 1740
acctctaag gagaaaagaa aaaaactaaa acagtttcag aaggaatatc ctttgatata 1800
tcagaaaaga tttccaacca cggagagtga agcagcactt tttggtgaca aacctacaat 1860
caagcaacca atgctgattt taagaaaacc aaagtccctg agtctaagat aactaactga 1920

```

```

attaaaaatt atgtaatact tgtggaactt tgataaatga agccatatct gagaatgtag 1980
ctactcaaaa ggaagtctgt cattaataag gtatttctaa ataaacacat tatgtaagga 2040
agtgccaaaa tagttatcaa tgtgagactc ttaggaaact aactagatct caattgagag 2100
cacataacaa tagatgatac caaatacttt ttgtttttta cacagctatc cagtaaggct 2160
atcatgatgt gtgctaaaat tttatttact tgaattttga aaactgagct gtgttaggga 2220
ttaaactata attctgttct taaaagaaaa tttatctgca aatgtgcaag ttctgagata 2280
ttagctaata aattagttgt ttgggggttac ttctttgttt ctaagtataa gaatgtgaag 2340
aatatttgaa aactcaatga aataattctc agctgccaaa tgttgcaact ttttatatat 2400
tctttttcca cttttgatct atttatatat atgtatgtgt ttttaaaata tgtgtatatt 2460
ttatcagatt tggttttgcc ttaaataatta tccccaattg cttcagtcac tcatttgttc 2520
agtatatata ttttgaattc tagttttcat aatctattag aagatgggga tataaaagaa 2580
gtataaggca atcatatatt cattcaaaag atatttattt agcaactgct atgtgccttt 2640
cgttgttcca gatatgcaga gacaatgata aataaaacat ataactctct ccataaggta 2700
tttatttttt aatcaaggga gatacaccta tcagatgttt aaaataacaa cactaccac 2760
tgaaatcagg gcatatagaa tcattcagct aaagagtgc tcttatgatg atggaacagg 2820
tctctaagct agtgggtttc aaactgggtac acattagact caccggagga attttaaaac 2880
agcctatatg ccaggggcct aacttacact aattaaatct gaattttggg gatgttgtat 2940
agggattagt atttttttta atctaggtga ttccaatatt cagccaactg tgagaatcaa 3000
tggcctaaat gctttttata aacattttta taagtgtcaa gataatggca cattgacttt 3060
attttttcat tggagaaaaa tgcctgccaa gtataaatga ctctcatctt aaaacaagg 3120
tcttcagggt tctgcttgat tgacttggtg caaactgaa gcaagttgcc ttctaatttt 3180
tactccaaga ttgtttcata tctattcctt aagtgtaaag aaatatataa tgcattggtt 3240
gtaataaaat cttaatgttt                                     3260

```

&lt;210&gt; 202

&lt;211&gt; 1495

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 202

```

gcctgatgta taggaaaatc gtgtagtctt ctttcttccc caattgtttc catggattta 60
gacactagaa gtgtctctaa atttatttca ttctcatacc aaaaaaaaaa atgtgggttg 120
tttggcttgt aaagtatgga cataaaaaaa gatagcgggc catgcacaga aaggcagaat 180
ttaaagcta gctatagttt tttagagata agtgaccta tttttttct cttgcctcat 240
actgttcaag tcagggtctt tattccatat ttagccagtt tctgcacatc ctgacgtttt 300
tcataaggga ctaggtgca gtattgggct ttagggatcg tctgagggga gtccaactag 360
gatttctgct gcttcagcag ccagcccag gcttgtcatt gtgtgccctg cctgttaagt 420
aactcatcac agaactgtta ttctccactt ggcaaaacc agagagccag ctcacctcag 480
attgcagggt tagtaaaact agcaggagg agtgctgaag accaatctca ggcactgccg 540
cacaactcgg gactcaacac ccaggctcag gacatgtatg ttaaagcagt ttattcaaaa 600
tattgtttta aattatgttt catttacatt tgtgtccata ccttttccc ccatattttg 660
ctctttcccc ctaaattgat gatttgcact tcaagcgtgc ctttctttg agcttcttaa 720
atgcttttaa attttaacca tgtaagtct cctctgggct ttggtacgtt ggcagtggat 780
ggagccgcag aagagaggaa gggatttctc tggaaatgaa gctgcctgtg ggtgaagtgt 840
ggctgttttag ggtggaagg gaagggtttt ctctctgctg taagagtgtg tggagcctga 900
gaccccttgc ctgtgtgctt gcatgctggg aggtaaaggga cgggtgtagt tgagggacat 960
gatccggagc cctgggagcc tgtccacttt gcacagtagc atcaccctta ttccctgagc 1020
tggcacaggt cctgtggccc ttgcccagga gtccaagggt gggggacttt ggggtgggac 1080
ttctaggaat catgcgggga ggcgggcagg ttatttcttg gaacagtga ggaacttgcc 1140
gggctagacc atggtacaca tggaggggaa cgttaggggt taaagttgga gaaattcaga 1200
actaaattgt aacgggcttc aaatgccaaag ctgaaccatt tgggaactag taatgttttt 1260
gagctagtag tagacattaa agggaaatgg cacaaaacca cttattggca ttgagtga 1320
cctagctgtt tacctctttg tgcttagtga cctcactga tgcattgaac ctctctgacc 1380
ctcagtttcc tcatctttgc agtgggagta atcattctta cctcatggcc ttgttcggag 1440
agttaaatat tgttagtggg tgctgaataa ctgctatctc taaaagagga aatg 1495

```

&lt;210&gt; 203

&lt;211&gt; 2416

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 203

```

tgacttgttc atttgttctt tatccattca cttgttccct gcatattttg aaagtgtttt 60
gcattgcatt gaactggaga caggggatac aaaagacaag cctgctttt gtcactcagt 120

```

```

cctgtggccc agtttccttt cgcgcttttc tcttccaatg gtggggagaa ggatccagag 180
ctocctaggt gcactgtcca gaaaaatgga aaagtgaagt caccatgaga acacgaagtt 240
cagcgtgaga gtaccagcag gtaacagtta ttgagtactt actccaggcc ccggcattgt 300
cctgtgcctt gtacgtaaat taaggtcttc ggatctcatg atgccaggaa accccagccc 360
caccacttag tcttctctgt tctgcctctg gtctttctgt ttctccctc tgttccagt 420
gtcctcaccg gaatccacat ctgtgaatgt cctctgaac cattgccgaa actttctagc 480
tagtctcctt tcagcctctt ctctgtcca gttctcacgt ctttgtaa atccatgtca 540
cttttttgc taaaaccatc aggaacaatg cccttttaac agtagacttt caagagagcg 600
tctggcttta tcttccttct ttattgtgaa tctcatgagg gcaacaagtt ataaatactt 660
ggcttcccaa caagcgtagg atagtgcctg gcacacagcg gccatccttg atgttgagt 720
gatgcatttc cttgcagttc ccacatgca gtcagcagcg ccaacccatg taggggacct 780
ttgatccttc ccagttctc tcagcctctt ctgactcagt tccctgtccc cataaaagtt 840
tgttccctcc ctgctgtttt ggctgtgaga gaatgctgac aaaccagca aaccaccagc 900
cggcgagtgc ttcagtatgg ggccgtggcc tgtgcattcc ataaccctgc tgcctggccc 960
agtgtgtagc acctgatgtt tgcaatcatg ttctgtcaga gttcacatat ttgctctgtt 1020
acttttttat ttaattgagg tgaaattcaa agaacagaat taaccgtttt aaagtgacct 1080
gtgcagtagc atgaagcact ttccctgcat gtgcgggtccc cacctctgcc tagcaccagc 1140
ctttccatcc ctccactctg ttgtttacca gctctgtgac attgtcagct gcttccctctg 1200
taagacgtga ctgcgaatc tgacctgcca ggtttgaggc acaggacttg cacacggcca 1260
gtgcagaagt ccataagaa cataacctac ccaaggccag ctccactctc tgttacatat 1320
gctcatgaga ttagtctat agactcagtg tgccacttcc ctgcacatgc gagggacgac 1380
agtgtctga cacagcagtg aaccagtggt ggtgccagg agaaagtgtt tttttgggg 1440
ccagccagca cacatggggt ggcttgtcca ataccctcac cgggtccagat atttaatact 1500
caaaaactgt cttctccaaa gctgtcttct ccaactgtcca tcaagttggg gtcatgaagc 1560
atttttctta aaggggaatg agtagaaatt gcttagctat attctactcc atccagtctt 1620
gctcaaggag aggtctgctg caagcaagag acggcggcta caccctact ggaagtgtctt 1680
gacctgcagg aggcacagct gccctagagt taaccttgag gggtagatta tttttgatct 1740
ctgaagccca ctgtggtttc tgcctgcttg gtggagaagg cagtgcaggt acaggagact 1800
cacatccagc ccagctcgcc ctgctgctgg gggcctcagg cgggtgggat gcaggagagg 1860
ctggcgggct gccattgcac actgctgccc gcctggcctc tggacacatg gccagtgtgc 1920
agggtgctgt cccggggatg gtgatggttg cacttcattc attccatcca cagggtgtctg 1980
tggagggccc acgacgtgct agttgtggtg cgttgtggtg tgcaggacag ggaaggtacc 2040
tatgctcat gcagcagtg ttagtcatg tgagagtga tagtcatttc tgaagcatct 2100
tcaacatcac attaaaaaaa aacttaaat aggcggggca tgggtgtctc tgcgtgtaat 2160
cccagcactc tgggaggccg agtcgggctg atctctgag ctccaggagt cgagaccacc 2220
ctgggcaaca tggtgaaacc ccgtctctac taaaataaaa aaatatatat atattagctg 2280
gacatggtag cacaagcctg tagtcccagc tacttgggag gctgaggcat gagaatcgct 2340
tgagccccag agacagaggt tgcagtgagc cacaccactg tactccagct tgggctacac 2400
agtgaagctc cgtctc

```

&lt;210&gt; 204

&lt;211&gt; 1223

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 204

```

ggccgctttt tttttttttt tttttttttt ttttttaaac acaggagagc tgcattgtctt 60
attgatccaa aaaattcctg ttcttcaccc cgcagtgagg ttgctctggt tgtgggacat 120
gaactcgccc atcaatggtt tggaaatctt gttactatgg tatttaatat ttttaagtgc 180
tcaaataatat ttatcttcat cctactccac attattttgg ctacatagta tttcaagttt 240
ggctgcaaca ctgtgccaaa aaataattga gtgatagaaa agtattattt taaaaggctc 300
actttgaaag ggcttatcag aatctctgca ttgaacaagg gcatatggac agtctttatt 360
caacagacac ttcttaaaact gttctaaaat ttgtctgcaa gtgggaaaag tcaagatact 420
aatttgggtg agagaaaaac attcctctta ggtgtagatg aatgaatcat gcagttagat 480
tccaggctaa ctgtagtctt ttgaatctta tttgttaatc tgattcacag ctgaaaagta 540
acctgatgaa taacaaactg atctttaatt agagagaaat gtttttagga gtcagttttt 600
tcattgccta aaatgttaag ttgaatttta atgaaataaa agtaaacaaa ctgcagagt 660
actgcagaat aaagctgtat taaaattcca gctgttctgt tgaatcctt ataagtgtt 720
cagtaatgat ctctgtcctt cagtcctgat ttttactct tactctaaat aaatactatt 780
tatgaatgcc aactgtgtta gagcttggga gcacaggatt taataagtga actagatgta 840
cctctgcaat taaataactg gatattcttg agccagctag attcctgac attttaggct 900
gccaagagc agaacctgat ttgaatgtag attagttcca tacgtcatat aaataagaat 960
gtaagacatt tatcaactat tacgtgtctc agagagtctc tacagaaagt caacccttga 1020
aaataaatct tttcctttta ttttggatgt ttaaaatttt acagggtgaa aaaattcttt 1080
gaaatataat ttcaggccgg gcacgggtgct caccgggta atccagcac tttgggaggc 1140

```

tgnnnnnnnaa aatggcttga ggncaggggt ttgaggccag gctgggcanc atagtagaga 1200  
ccttgtctct acaaaataaa agt 1223

<210> 205

<211> 1026

<212> DNA

<213> Homo sapiens

<400> 205

tgaatattat ggtatgtgaa ttatgtctca attaaaaaaa aataaaaactt aacctgggtt 60  
acaagccctt ctatgatttg gtctggctca gcgtctctca ttggcttccc tccccgcct 120  
cccgttttcc tcttagcttt accatgctac agttccttct gcctccgagc tctccaaact 180  
ctccaatcta cgtttgcatt tgcacttat cctgtgcagg aaccattctc tctccacct 240  
atcccttgtc ctccccactt gactgactcc tccttgctct tcaaatctta gcttgagatg 300  
atacttcccc agaaggcttg gtccccccga actggggttag gttctcctga tgtgtgttcc 360  
atacttagct cttttgtagc attcaccaaa tatttgttca ttctgtattt attgagtga 420  
tgctctgggc tgggcactgg gctagggctg agtatttcat aaatgagagc tgtggccct 480  
gccccatgg taattacagt ctaagaaggg aagaaaatgg acattaaaca gtgaattaca 540  
ctaaatattt taattataat tatgacattt cagaacaccc tggggagggc gtgttaaggg 600  
acttgacata actggaggta tcagataaag tgtcatttaa gcaactttaa ggagccaggt 660  
ggccaactga agagtgggtg gtggattgtt ccacacagag gaacagcatg taggaaggct 720  
ctgatgcaaa gcttgggggg catttcagaa actgaaaggc caacgtggga gacaaagag 780  
agcctgaaag agccaaatct taccttcttg accatggtaa gggtttctaa gttcatctta 840  
agagaagtag gttgcctttg aagactttta acatgggaac tttaaaagtt cccgtggcg 900  
gccgggcgca atggctcaca cctgtaattc cagcactctg ggaggccgag gcgggcgat 960  
cacgaggcca ggagatcaag accatcctgg ctaacacggg aaaaccccg ctctactaaa 1020  
aatacc 1026

<210> 206

<211> 1643

<212> DNA

<213> Homo sapiens

<400> 206

ggcatccag ccagtgccag atcatcatga gaaagttttg ttagaaaagt ttctctttca 60  
tagtcccagg tgagccatct gttgcaaccc aaggtaagta tacgcatgta cctcatcaga 120  
cctcagtcga aataaatgta gctgtctgta gtcctccttt tccccacta aatgctcata 180  
gctgttcaaa tgttcttcat atactatggt ttcttagact ctcccaccacc atgtcttctc 240  
tccactgcaa agtgcatcat ttgtcatggt tccogaagat taagaccctt gccaaatgaa 300  
tacaatactc cagacgcatg actggatata ccatttgggt tcactctttc taagttacac 360  
taatggggct cacagctttt ccttcacctt tgttttctcc tttttctag attttaattt 420  
ctttattcac actttccaaa ccaactgata tctttagcct taatctgtct gctctcattg 480  
ttattttaa tcttgccagt cactttcttg cccatcacca aattaacatt ctgcaagggt 540  
ctgttcagaa agtaaattta caagggtgtt ttagaaaact gattttaaga gatggcaagt 600  
aatccctata agtattttaa cagcagctga ttgctatggt tccacataat ccaacagatt 660  
cacacatttt ttagaccaca gggccagctt ttatgccag ctgagtataa gttgcagggt 720  
ctttgggtat taaatcaact taatatcata tcagtgaaca cagcctttat tgagtctcgg 780  
ggttgttgca aataatgtct ccaagagaca gaatgagttt tgcttgaaac tggggcactg 840  
atactttccc acttcgagta ttgatttggt tagtgatttg tctctgtgtt ggttccaggt 900  
ccttaggtta catctcctta ttcactgcta ttctactttc tccccagaa tggacgtgtc 960  
attctaatac attttcaatt aaaaatgtct ttgacataaa tttaaacaag ttaactgtga 1020  
aattctgcag cagactctac ttttttctat ttaaaaaatg gaaacacatg ttataaaaga 1080  
acatttaatg acatggaaaa atattcaaga tatattggtt aaggaaaaaa gcagatttct 1140  
aaagcacaaa cacaagatga atccatattc gaaaaataga atacagtatg tgtgcacatg 1200  
tgcacatata tgcttgata ggaaaaatct agaaagattt tcttcagggt atcaggctct 1260  
ctcttttaca ttttctaaag atcactttcg tcttcttctt ttctcagcta tattttctac 1320  
attttctgta atgaacacta caactttaat aaaaacaaaa cttaatgtta cttatcttta 1380  
atgtaataaa aatggaagca taactctaaa caattaaaca tgataccaca tgtccagaaa 1440  
aagtcctctt tgttttgaga cagagactct gctcaaaaa taaataaata aataattagc 1500  
tggattaggt ggtacatttc tgtagtcca gctattcagg aggctgaggt ggaaggatca 1560  
cttgagccct gaaggctgag gctgcagtga gctgagattg cattactgca ctccagcctg 1620  
ggcaacagag tgagatacta tct 1643

<210> 207

<211> 1766  
 <212> DNA  
 <213> Homo sapiens

<400> 207  
 cttgaccttg tgatccaccc accttggcct cccaaagtgc tgagatgaca ggcattgagcc 60  
 actacaccca gccagccatt attttttatg tgtatttttt ctctttatct tctcctgaca 120  
 ttgacttggt ggaaaaacca ggtaacttat tcttttgag gcttcacatt ctgtattttc 180  
 tgattgcttc ccatgacgtc gtttggtttg ttccataac ccctgtattt cctgagagact 240  
 ggaaaagtct tgcttagttt caggttcaac tctttttttg gcaagaatcc tttatagggtg 300  
 gtgatgtgag ctttatatat attttccctt tttttttttt ttatcatctt gcatgggtga 360  
 gaggagttag ctttatattg tatcatatca ggaagcctat gatattccac tgtaattggtg 420  
 ctgagtttga tctgtgggct caggctccca ttgaatttgc acctaattggg ttcatccatt 480  
 gatgattatt gcttgaatca attatttcac tagagggtgc aaaaatttga ttcccatctc 540  
 tctcatttct tctaaattta ttagaagaaa atagacaagg tgagcctagg atgttttggg 600  
 gtgtcagaaa gcgaggaaac taatatggct ttgtcaaaag gactcagaag ttggccaggc 660  
 gtgggtggctc actcctgtag tctcggcact ttgggaggcc aagggtgggct gatggcctga 720  
 ggcctgaagt tcaagagcag cctggccaac atgggtgaaac cctgactcta ttaaaaatac 780  
 aaaaatttgc ggccgtggtg gcacatgcct gtagttccag ctgcttggga ggctggggca 840  
 ggagaattgc ttgaacctgg gaattgggag gttgcgatgg gccgagattg cgcgctgca 900  
 cccagccttg gataacaaga gtgaaactcc gtctcaaaaa ataaaaatag aaaaggactc 960  
 agaagccaac ttgaagtgcc tctcgtgccc aaagatagga tagtctgaga ataaaaagaa 1020  
 taatgactgc aattagttga aacacatgga aataaaaaa aacgtaaggc catagtata 1080  
 ctttttaaaa ggccaaggaa acacagtga acaaaattca ttggtcccat tagaggtaat 1140  
 agggcaccaa ttcttactt tgaattttg caattaaagg aacagaattc agcatttatt 1200  
 ctgcctttcc tgaatgaact gtattttaga gtaacaaat agtcctagtt gatgagggaa 1260  
 tattttgttc gtttaatatg aaaaaatatt ctgatgttta gtttaaaaga aaatggactc 1320  
 caaatatttc acttagtata cttagagtatt tcagctgtaa gtgccaaaga gtgggcctaa 1380  
 ttcagacagt tctcaagaaa tcagatttaa gctgggcgca gtggctcaag tctgtaatcc 1440  
 cagcactttg ggaggccaag gcaggcagat cacctgacgt caggagtctg agaccaacta 1500  
 ctgaggaagc tgaggcatga aaatcacttg aacttgggag gcggggnngg cagttagctg 1560  
 agatcatntt tgggtgacag agtgaactg tctgaaaaaa aaaaaaaagt gaatatgctt 1620  
 gcacagataa atacaaaac atctgggtgt gtatagacca acatgtgtgg cctagggtaa 1680  
 tagtattgtg gctgattttt agtttattgt ttgctcaact gtaattttgt atttttcagc 1740  
 tacaactatt aacatagctt gtgtcc 1766

<210> 208  
 <211> 1460  
 <212> DNA  
 <213> Homo sapiens

<400> 208  
 gatgaactgt tttccagtac agaaatgcct gttttcacca ggagtgtgca atcttcaaca 60  
 tgtggcagta taaaagttct attttatttt tctgatctag cgtgtgtaca tggaaaccca 120  
 ttgtgtgttc actgtgttta ctctgaggtt gagacatttc catatatctc ttggccattc 180  
 atatgtcctg tttggtgaag cgtctgtttt tgatctgttt ttctactggg ttgtgtgtct 240  
 tattgtctga tttcgattag agtgcctcac tgattatata tgttgcaaat atcttctgat 300  
 tttccttcca tgtttttaat gatttattta aataagctaa agttcttaat gttagtttat 360  
 agactttaca atattttctt tcagattagt gctttggaat ttttgtttag gatattcttt 420  
 cctaccaaga gatatgaaga tttcctttta ttttatctga aaaaagctta atattttatc 480  
 tttcatattg aaaccacaca gggaatatat ttattgcatt ctgtaagagg tctagtttat 540  
 ttttctttag aatatcaca tacaatttat tttaaacagt ttgatccatg tcaactaaagt 600  
 tcaagtgtac tctttgtota cctctgtgcc aatcatcaca tttttatctt catgatttta 660  
 taataatceg caatttatat ttttatactt tgtttatttc ttgccaatat gcattgcac 720  
 cctgagaaaa gtgtttattt tgcgatgggt ggtgcaatgt gctatatgtc taatatctca 780  
 aactgttgaa gtatgttgtt cacatactct atatatgttt ccagggtgta gtttacata 840  
 tctttcagta actaaaatag gtctattaaa ttttcccag atgtttatgg atgttttaa 900  
 atcttttctg atatttttcc aaaaatttag tcttgcatt ttatatgctt atgaatttta 960  
 gtggatacag tctagaattt ttattgcatt gtggcaaat aagggtcttc tcattataaa 1020  
 gtgacctctc gtaagtctgt ggtgcttcat gccttaattg ctgttttagt tgacgttaac 1080  
 attacctttg ttttgttagt aatccaattg tgtatagttc ccatgtgttt acttcaggcc 1140  
 tttctgttga ctgaggtttt gactcttttc tacatagcgt ctatttgggt ctcataatct 1200  
 ttgattttca accgagatc cactgatatt tacttttatt tttgatata ttgtgtttaa 1260  
 gtcttctatc cttaattgtg ctactaatat cccacttcta catcttgctt gaattgcttt 1320

ttaaaaaatc attcaggcca ggcacagtgg ctcacacctg tagtcctagc acttttggag 1380  
 accaaggcag gaggatcact ttagaatcct ccaggagttc aagaccngcc tgaggaacat 1440  
 agcaagacct catctctatg 1460

<210> 209

<211> 1395

<212> DNA

<213> Homo sapiens

<400> 209

gaaattaatg gctcagtggc tactacatat aactcaacca atgaatttgt atgtctgttt 60  
 cttttgacaa acatcatctt tatagactat ttcagacata taatgtcatc attctgtata 120  
 ttgtgttagg aaaaattatc aaaaacttag gactaaggca aaaagaagtc tgcattgtcct 180  
 ttcaatgtca cactggaata tcgtccagga gatcactcac ggattaatca tctaggggaa 240  
 tggaactttg gttgtttgat tattaactcc taattaaagc ctgactgtg aagtttcatc 300  
 ttactttgta gattttttatt ttgaagagat gcaaatgaac actttttggc taaaaaaaaa 360  
 aaaaattaaa acacaaatat tattgtttta ttgactatag attattatgc tgtgtgttat 420  
 ttaatccagc aattttattc tgactttctt tcatcatttt ctataagcat tcagttcccc 480  
 aaatactctt tgaagcaatt ttatcatcct ggttgttccc tcattagtga gttgaataaa 540  
 tctttgactt gttcttattc tgtattcata tatgagttat gtcattgcat tttatggcaa 600  
 ttttacatta tgtactaaat taagttgccc agttttcaaa aatcttccta agagttgtac 660  
 cataattaat ttttctcaac tctatagtat tttccacaaa aaaactatac tgaaattaaa 720  
 aagaagattc atacatttca aaacaactgc tttctctgg cgcaatgcat taagtgttaag 780  
 tgatgagcag agagcctcct aggcattgtac cccttctgac atctgtttct tcagaaagat 840  
 gtaaatgcaa tgtcctattt ttaccacaaa acaagtccac gatgtgatat ttttatgaa 900  
 atggtgaaat aaataacctc aatttaactg atgtaatagc aaatgtgatt aatggaatcc 960  
 atgcaaaagt ttgacttatt tatttgcctt aattgaatgc ctaatcatga ctcacagatg 1020  
 ttagagttag gttttttttt tttaatatgg gcataaaata tgcaaaacttt ttgtctagt 1080  
 cggcttcttt tggagactta aattaatatt cattttgcca tccccctcaa ttgtcctgtt 1140  
 tcctcaaccc ttgccaaca aatgttaaca aaaatgtttt tcaatgaaat ctactacta 1200  
 atataaaaaa accccagaaa acaataaacc aaaaaaagta gcttgaagtt ttactatatt 1260  
 catttttaat gattactcag aaaaacagta ttaaaaaaata attaatatgt gccccaaagg 1320  
 gataaaagct tcacaaatgt gtttataatc taaaagaaga tgacagaccc aatgtatgtg 1380  
 agttttaaga aaagg 1395

<210> 210

<211> 1451

<212> DNA

<213> Homo sapiens

<400> 210

gggatatctgt gaaggtctca ggagagctat ggctatttat gtttctgtgc atacatgtat 60  
 gcagtgtgtt tacattccct gatcaaagaa ggattaacac actaatagat atggatgatt 120  
 acatcaggga taattgtgcc aagaaagata ttctcctggg agcaattctc ttatggccca 180  
 actcactctt cactgatacc accttccag ttatttccat ggtccctcct cccaccacac 240  
 acaagcaaga cttggtgttc tggagggtcc ataaatttat aagtcttagg agaatgagct 300  
 gatgccactg ccagctgtac ccacagcata gtatatccag ctacaaggaa agcatcttcc 360  
 atccagttag tgctccctgc ttcacactgc ccacctgacc tctttatcta gattttattc 420  
 taaattttta cacttttgcc aaaattccag cgagccttta acccttatat cttcccttct 480  
 aaatgtgagc caaatctgac ccttccaaa ctccaggatc acagacacct gatgccaggt 540  
 ttccatctaa atcaaaacca taataccaaa ccacatttca ctgagttaag gtccggcgca 600  
 tcattttatag atttttgtct caaggatatt ttatacttct tatttaaaag cctacaattt 660  
 gaatgtttgc ctttgatacc tgacttttgt gtgtacagct ggagaaaagt tacagaacca 720  
 aatgaactga agtcatttaa caatgtagtt gtcaatctta gctggatttt cagtattgtg 780  
 tatggcagca tatatgtatg tatatgggaa aataattggg ggagatatta ttgtggtttt 840  
 gttaatgctg atgcatttgt gacactgtgt gtgtataaac atttattcag gagagcttaa 900  
 aaataagaga atatttgaaa tatattgcat aatcccaatg agtcttcta agttgttgca 960  
 tgatagtatt ttgtgtgagt aggggagtgt ttgatatgtt gtgtgtatgt gtgggtatga 1020  
 gatagtgcct ataaatcccg ggtgtgttaag tatgagagtg taaaaatgta tatttttctg 1080  
 gtacctttga gtgactgtgt gtgtgtgtgt gctcatgata ttctgtgcat tgcttgtgtc 1140  
 tctccctctt cttgaccttc cttccaagat aggtcacatt taggaagttt tcatggacac 1200  
 tcctgtggac aaagcaaaga aaaaatgttt tgggggtggg ggtggggaat tttctccatg 1260  
 ggggaaaagt tttcaaagt gctttgtaga ctgatgaaaa tctggaaaat agataaaatt 1320  
 ttcccttcta gactccctca atttgcattg cagtgtttac agccgggggt aaccctttct 1380



tgtggatgaa ttcttagaag agtcttttta tttcttcacg actcagagaa aatcttgcag 1440  
 caaaggtaaa g 1451

<210> 211  
 <211> 893  
 <212> DNA  
 <213> Homo sapiens

<400> 211  
 aattgctgtc tgggttgatg catttgtctg aatggagggt ggaagaaaga ctgagaatta 60  
 cattatgtga aagccctgc ccaactcctt gcttatgata ggaagtctgt ggccactgac 120  
 ttcccacatctt atgttctatg tactgtatga agtagtatgg tatagtattg tagaatgagg 180  
 ctctgtagtt caacagcctg aatttgaaac ttgactctac cacttattgg atgtgtgagc 240  
 tcagcaaata atgtctttct gcttcagttt tctcacctat taaatagaga taattagcat 300  
 ctttctcata ggggttggtg tgtggtggtg gtggtggtgg ttttctactc aggcacaaaga 360  
 gcattgctct gctaattggaa acctggagaa gtgcttggtt gcaacaata ctctgttctc 420  
 cacctcctcc atataccagg gaaatgttgg tggctctgtg aatggaacca aaattaatgt 480  
 tcctctcatg aaggaaggaa aaggaaataa catgtgtttc gtatgcatta tctcacttaa 540  
 tccttagatt aattccttca gaataaatat tattagtgtg tttttctcatg tgaaagacct 600  
 gaggtctcaag agagtgttga tgcaagatca aatgtctgct gaatagcaaa gccagattc 660  
 agtcagagga atagctgact caaaagccca tctgtttcca cctcattcta ctagttaaat 720  
 tgccaacatt tggggcatag ctgctttcct cctttcttag atgtggcaaa ttaaaagaaa 780  
 cctgtgccac aatccagtc atctgccctc actttccttc aagtgcaggg gagcacgcac 840  
 agtgcaatct caaataaggt ttggtcactg accaaatacc ccttcttttt cct 893

<210> 212  
 <211> 1358  
 <212> DNA  
 <213> Homo sapiens

<400> 212  
 caattttctg cacttggttc agctgttagc acagtaaaaa aatcatttgt atcaaagggg 60  
 caaatgcttt attaaggtag taaaaggga cattacttct gcttttagga agttactgca 120  
 agcacaagca tttgtgcttt taagcaaatt aaagtagtaa aagaaaaact taagtgaac 180  
 ctttgccatc ttcattgttt ataataataa gcttacccaa caccagttaa gccatggta 240  
 acctaaatgc ctcatgcccc agttcagcaa aaggaggaaa atgtgcctgc ctcacagtca 300  
 tcagtctttt taaatctttt ttgttgttgt tcttaagggt ttgaatttgt ctgcattcct 360  
 tgtcttttagg ggaaattccc ttttcatatt gtgtgcttcc caaagctata gtcataagatt 420  
 tcttccagaa actattgtca taattgtcac tggagtgcct aaatatacgt actatactga 480  
 caaaaatacat ggaagtgcgt tataatgagg cagaaacaaa atcctcggta acattgatga 540  
 tactctaccg atcacctggg ttttggaag tcagtcaaca gttgtattat tgcactcaat 600  
 ttcattgtga cattttattt aacttcttca tcttggtggt ccttgcccag ttattttgac 660  
 tcattagaca tcaagaaatg gagaaagact gaaagttaat atcttaagt ctgttcttc 720  
 atgtttcctt ctgtttattt atgctattct ctttgggtgc ccattcttct ttcaatcttc 780  
 tcagcttata accgtcttcc ccttatgcta aggatagccc ttacactcat cccatctatg 840  
 ctgtcaaggg ctgctggttg gtgctggtac aaggagccca ctcagcagtt ttcttacctt 900  
 tgctgcccct gcctttcatg gaataagaaa ggcaacgttt tgcagcttcc aaatttctga 960  
 agaaactaat ctcagattgg cagttaaagt caaaatgttg ccaaattatt attccttttg 1020  
 cctaagtgtt gctaccgggt tcaattgctt tttattttta atgtcttgac tcttcagagt 1080  
 tcgtacctca aaagaacaat gagaacattt gctttgcttt ctgctgaatc cctaactcga 1140  
 acaatctata cctggactgt ccagttctcc tctgtgctt tcttctcttc tatccaagta 1200  
 gaatgtacgc caggagctcc ttccctctag caatttctac taaaatgtcc aagtagaatg 1260  
 tttcctttta caatcaaatt actgtattta ttaatttgc agaatccagt aaatcatttt 1320  
 ggtagctctg gctgtgctat caataaaaag atgaaagc 1358

<210> 213  
 <211> 1803  
 <212> DNA  
 <213> Homo sapiens

<400> 213  
 tttgatacta agaggataaa gcagttgaat gcattttgtg ttttcattga actgcatatt 60  
 tatatatatt cctctoctat ccagaaatgc tggaagaacc ccttctgggg cctcttcagc 120  
 cactttcttc taatacacct atatgggcct gccgtcttag gagctgtgag gtgagttata 180

```

aataatcatt acctagaatt acttaactga ttataaccac aggtcatccc caaatgccac 240
ttttgagtac aactaatata gtctatagtt acagtatttt gtttgtgttt atgttaaate 300
tgatctcatt tattgttgaa ttcttagaga ttctaagctc tgttaaagca gaggttatat 360
atatctcttt acatttcact attatttctt ctcttgcaac tctcttccct cgtagtccat 420
gaaacttcac tatcatgttt ctctactatt tacttttcaa ccattttatt tctttctttg 480
cttgcaactta tttttttttt ttcatatta tcagtagaaa attcttcaag gtcacatttc 540
tgactttgtc ttttttctct atattttgtc ttttggagca cttacctact ttgttgactt 600
tcaactgaca tctacaaaaa tgattttcaa gtccgtatca ccagtttatt tatttatgta 660
tttatgtatt tatttattta tttattgaga cagagtctcc ctctgtcccc caggctgtag 720
tgtagtggtg caatttcagc tcaactgcaac ctccacctcc caggttcaag cgattctgct 780
gcctcagcct cttgagtagc tgagactaca ggcgcgtgcc accacgctca gctaattttt 840
gtatttttag tagagacagg gttttgctat gtttgcagg ctggtctcga actcccgacc 900
tcagggtgatc ctcccgctc agcctcccaa agtgctggga ttacaggcat gagccaccgc 960
gccaggccag attccagaat gtcgtgcctt cctcttgcct caatttggct acttggcctt 1020
tgtctcttg tgcttgatta caggaatagc ctgcccccta acatctttga cctccctatt 1080
tctggtccct aatgtatatt ttctaaggc tacttgatt tgaagattgt tttaatgtc 1140
ttttctcagt gcccaataag tcatgttatt ttttccacat tatttagcca ctgtagctag 1200
cttcaaaggc ctttcataat ctggtatcat cctacgttgt cctactttat ttctacttt 1260
tctcaaactc atcttcattc ttgctagcct agtctccta cttttgacag atactccaga 1320
atttttcttt agctctccct ttacccattt ttatttctt ttcctatatg ttactttttt 1380
cttctactta ccatcttcaa ctattcttca aatcccaatg caagctctac atgtcttttc 1440
tataaattat ctaatgatta ttttagcctt tatctatttc tctctttaa ttcttttagta 1500
ttaattgtca ttcttaatta tttactagct taggcggggt gcggtggctc actcctctaa 1560
tttttagcact ttgggaagcc aaagcgggca gatcacttga ggtcaggagt tcgggagcag 1620
cttggccaac gtggcggaac cccatctctg ctaaaaatgc aaaaattggc cggcggtggt 1680
ggtgggcacc tgtagtccca gctgctgagg caggagaatc gcttgatttt aggagatgga 1740
ggttgcaagt agccaacatc acgccactgc attccagctc gtgacagagc aagactccat 1800
ctc

```

&lt;210&gt; 214

&lt;211&gt; 1772

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 214

```

cgccttttota cttctcaatc tgatttctat gaggtttttt taaacgagca atccttggct 60
gcttctcttt ctttaactct tcaagtactga gagcagcccc tccacactga aaacaccag 120
cactgtgacg gagtccagcc tgggtctggg taccgtgggc cctgctcctg cccacttagc 180
gaggcatggg ctcttgcct cacttgccc cggcaatccc actgaatttc tactctgggg 240
tggttggggc acacacttgc gtttttttaa tgccaatttc gttttcatgc cgaatctaag 300
aagccacaac ttgctttgtc agcttcaggg caggcagcca tgacttcatt tctcgccctga 360
acaaggacca tgctgtcctg caagctgggt ctgaccgtct gccctctctc cccagcacca 420
agcgtgacct tggctgtggc gctcaacggc cagctccggc ggccctctg ctgctcctcg 480
gctttcccg aagtgggaga gcctgcctgg cctcgccctt tgtccagcga ccaggctctg 540
tccccagaaa gctacggcgc acctgggtct ggtgttggga cgcattggacc gggctgggga 600
ggtgcacaga gtgatgttaa ctttttcccg tgtgtagata tgtacagcca aagggtctgt 660
taaatgttct gcaaaagtgg gtctatacag agtgaaagct atttattttg tgcagagaaa 720
aaagtctgga gggatggaac cttcagggtt tattcatatt taagatgtag ctttttgttg 780
tttcaggcat tatgtataaa gcaacgatta ttttatggac caagttttca tgtaactgtt 840
gcagtgaag tgcaatatct gacccccctg ctcccagcag gaagtgtgtt ggcccgacaa 900
tcacagcccc tgtcaggggc cctgtggcca gtgcctctc ctctcttggc cccaccttat 960
cctgtcttgc ctgctgcctg ggagaccagc catccagaga agcacctgga agagtctcg 1020
gcccctctgc aataaaggcc gggaggccct gtgggcagtg ggctcagcct ctccccagg 1080
gggcagctcc cccacggctg ctcaactccc gctgcctgc ccagccgtca gccatgccaa 1140
ggacaacagc aatagctccc tggggctctc ccagcggccc tcagccatag atggcaagg 1200
gggcaagcct gccccccat ggggaagtct tctgtatcc aggtctgctt ttcaactccc 1260
ttcagattcc ttttgccaca ttctcctctt gaggaagtac cagtctttct gaaactaaga 1320
gagggagggc agcgtccttt aaaaaatcca aaaatgttta cagagtggg tgcgtgactg 1380
cagggtctag gcctgaccag tcataaccaa agggtagggc aggccttgc tactgccacc 1440
ccccaggcct gttagaatag aagccttagt cccactccca ccacacccc acgccccacc 1500
acctgccttc tctttgattt ctaaaagggg attcagcaga gacccccac cctccctgg 1560
ctcgtctgta gtccactgc ccacccatc acagccttca cgtctcaacc cctcccgct 1620
ggtctgtccg tgtgcctct gtttctctgg gccatgtgtg agcagtgtcc catctcccca 1680
tccgtccctg ctgtcccgcc atcattgggg ctgagtgtgc tctgtataca acgtcatgtc 1740

```

tgttacacca attaaagaag cggaaggct tc

1772

&lt;210&gt; 215

&lt;211&gt; 1519

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 215

```

gaactcacct ttacttgacc tgtccacaac atttgacaaa gcttacccgat gactccttga 60
aacttgactt tatttggttt atagagtacc acaccttttg gtttctctcc aatcttcgta 120
accattcctt ctcaatctcc attcatgctt ccttctcttc taactgttct ctttatgttg 180
gagtgtccca gagctcaaca tttcatcttc ttctctattt ttttggttg gcgatttcat 240
ctagttttat accatctgcy tgctaatact tccgaaagct atgggtctat actgaacctc 300
tccctgaact tcaggacca tatatccagc tgccattca acacctctgc ttgaatatgt 360
ggcagatata tcaaattcag cgtaccatat ctgaattcca gatgtcctta aatgtttttc 420
ccatctcagt ttgacaatn ctgtctttcc atttgcttag atgaacatac cttggaaatca 480
ttctgttttc tctgcctcat atgccacttc ttgcagtggg tccctatgac ccagagaaag 540
agccaaaatc agccttcatg gccctagatc gttctgccc agttattgtt ctgacctcat 600
ctcctaccac acactcccgc cttaccact ctgcaacagc cattctggcc tctttgctct 660
tcctcaaact tgtcaagtac gttgctgccc caggcctttt gtgtgactc cctgttacct 720
gaagcactgt cctcaggtac atacgtagct cactgtccaa agtcagacac atcaccacct 780
tctcagacct aatctgacct cccaacagc ctacagcttt cttttttgtt tcatgtttct 840
ccataatcct tacctcctaa aatgatctat aatatccctc tgttttgtt gccccactag 900
gataaaagtt tcacaaggac agggattttt gtctgttttg tttacccttg tatcactagg 960
attaaaaata taagagccta ttatgtgcca ggactgaat ggtttatttt gaataggcat 1020
aatgtatttt taaaatgtaa atatcatgta ccaatgttaa tagcacaac tgctaattgt 1080
acaacatttg atgttcccaa agtttctgag acttggagg aatgttacia ttttaatttt 1140
tttgcttggg aaaataaaca atcatcagtc tttgagtttt gcggtttgaa gaaaacaagg 1200
ctgggtgcag tggctcatgc ctataatccc aacacttttg ggggccaggg tgggaagctg 1260
aattgcagcc agggatttga gactagctgg gcaacatagc aagaccctgt ttcaacaaca 1320
acaaaaaaca aaaacaaatt taaaagcca gacatagtgg catgtgctg tagttccggc 1380
tagttgggag actgaggtgg aaagatccct taagcccagg agtttgagca tacagtgaac 1440
agtgatggtg accctgtact gaagcctagg caatagagtg aaagcctgtc tctaaatgca 1500
aaacaaaaca aaacaaaac 1519

```

&lt;210&gt; 216

&lt;211&gt; 1334

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 216

```

gttgagtgga gccagatca caccactgca gttcagcctg ggcgacaaga gcaaaactcc 60
gtctcaagaa aaaaaaaaaa aagcagttga caaaccttct tgtttcttca taatactcca 120
caaaatatta tctaactttc aaatttctgc caatttggtg aatatgaaat aatatctcct 180
aagaacttaa ttttgcatte ctgagatttt cagttacagc atcttcccaa atgtttaggg 240
gccatcttct atttcttttg atatgacatg tcttttcaat cttttgcca tttctcctc 300
ataggaggaa tgaatatctt ctttataaca agtctatcca agagcaggat atatctgtct 360
ttattaagggt tttcttcaaa gtttttcaaa actgtttatt caataagttt tataatttta 420
tctataagag tattacatgt attttttagg atattattct gtactttata tcttgtact 480
aagctgtaaa tgtaaattaa aattacattg tctaactact ttttctaggc atatagaaac 540
agttaatgtt gtacattcaa tttttaacca gcacatttct aatattctct tattaattat 600
agtaatttga gatttgcagg cctgagcata gcagagtagc ttgtatttga ctaattctcc 660
tctgataaca actatagaaa ctagacaaaa tataaacaac taattgacta aaagcaccgc 720
tgagcaacca aagcaagcag aaactggaag aggcctgacg cgtgaaaact aagctctgta 780
attctttggg gtgccagggg agagaatcca agtagaaagg cacaatttta ctggtttaag 840
gaaacagagg tcagagttta gggctgctag aagagtttga aatggaaggt agtctcaag 900
aagagccagg tggaggaat gtcaaaatct ctctaccaag tcttcttaaa ttgttggtg 960
actcctaaat cctgcatgtg caggaggggt ctccaggaat tttataaaaa gcagcagcag 1020
aaagctgtag ctaggaggcc aaatgagagc tgagcagaga tttcagcaga gatttctgg 1080
atgtaggaac agagtttgca gttcaccaag gaccagcatt catcagttgc tttcctctga 1140
ccttgccatg tcatttcaga gattttcatg agctgggaag aataggtagg tgggcaatta 1200
gggttcaatt tagctgggta agtttggtta cctaccaac tatataatat gaaaggtaaa 1260
aatgcattta gactcaaagc atttctcatt aaccaccttt ccacaatgac atcctgggaa 1320
aagcctagag gact 1334

```

<210> 217  
 <211> 1256  
 <212> DNA  
 <213> Homo sapiens

<400> 217  
 ctccatctga aaaaaaaaaa gaataactaaa atagtatggt ggtaaaaaac aagggtcttg 60  
 gaatcagaga taccactctc ctccattttc taggtgtgca aggaagagca attcacttaa 120  
 tcttctcaaa cctcatccct tgtatgtaga ccagagggtga ttgtacctac cttacagttt 180  
 gtgaggatta aactaaatgg gatcgcgat atgcagggtc cagtgcagtg gctgccctgg 240  
 cttcagtcctt ggaagtcctc cctaaaggca gctattgttg tgcgcgttgt tcgagtgtac 300  
 cgataccgca tagcgctgtt cagtttttca tactctgtga tgacaggcgt gctgcttgaa 360  
 gaaatgtttg aactcgctt ttctcaagtt cattttctcc aggtgatcct gcacacctgt 420  
 gatattggtg atctcagggt atacatttct ccggcacaca aaatttctct ttcaccacgc 480  
 acaattcatc cctgatatta gtcactgaac ttggaaccgt ctggttttga ttggctagtc 540  
 agggttcact gaggcaaatt ccttcctgag attgctccat atgttcagga aagggtgtgt 600  
 ttgtgagctg cacaggcagt aacgtagaca tgaagccagg agacagcagc acgttgccat 660  
 tttcagctac tcccagtggt cagctgggca ggatgattaa tatttttagca tctttgttct 720  
 ttctgttttag ctataacact agagctgttt aaatcactct gaaaataaca tgcctgacat 780  
 ttctcagtt aaaaaaaaaa agcaacttca agtaataatc ctctgcctat tactgaggaa 840  
 gtgttttttg tgagaaagga gggaaaatta gatgacttag gggagaagga taattctgaa 900  
 tagcttcatg gtggagaata cattgaaacc taaaagctc aaaggtgtga cccaaagtgt 960  
 gtgtataaga ggatgaggcc gggcatggtg gtcacacat atgatcccag cactttggtg 1020  
 ggccgaggcg ggcagatcat gaggtcagga gttcgagacc agcctggcca acatgggtgaa 1080  
 accctgtctc tactgaaaat acaaaattta gccgggctg gtggcaggtg cctgtgtctc 1140  
 cagctgctcg ggaggctgag gcaggagaat ttcttgaatc cgggaggcag aggttgtagt 1200  
 gagctgagat tgctccactg cactccagcc tccacgatag agtgagactc cgtcac 1256

<210> 218  
 <211> 1138  
 <212> DNA  
 <213> Homo sapiens

<400> 218  
 atggttttaa agccatgagg ggacatgcca ggtcatttgt gtgtaaacag aaggtatatg 60  
 tgtaaaactag agcaacacct aaaattgcat agcatttttc tatttattat ctaattctaat 120  
 cgttaccatt cctcaaactc tgaggtagat agtgacattt atagagtttg acttttgaaa 180  
 aatcacacaa ctagtaagca gcagaactga gactggttca atccagtctt tttcttgttg 240  
 cactacagct gctcccaga aacagcaggc catggtggtt agaacagaaac tctctactaa 300  
 acggaatccc tcaaggtttt tctaattcct ggagaatatt ctccagaaat gcatgtgcac 360  
 aatttcactg cgtaaccoca tgttcacaac tgcactctgat ctgttacact gtttgggtga 420  
 cttgagcact ctggtattta agcattttgc tgcgtttctc tgtgcacagc tggcataagt 480  
 gtcactccct actaaatgat gaaacccaaa ggtagagagc aggtgcttac ttttatgcaa 540  
 aacagatttg aaataaaggc ttatgcaaat attggcttta aaaaatgttg ctgtttcttt 600  
 tagcagtttt agactaactc ttacatttgc tttttaccct gaaacaagga ctgagacctt 660  
 gagtcaacta tttgtgatat aactgaagat aggagattta ttgagacttt aagagcactt 720  
 cagctcattt tttttaacca atgaagatat tttttccttc taaaagagc ccaaagctag 780  
 aacctgctct ttctaattta ccacagggtg agagatttgg gggtagaggg tcggataggc 840  
 aacaaatcag atctctagaa agattttggg aaaatgtatt tcattatttg aatatattaa 900  
 gatttggtgc aaaaacagaa gatctggaaa ggtgaggtct gtgagggcaa ctgtaaaagc 960  
 aattttattt ttgctccctt tattatagta gggcatacaa gcaagaaagg agccaggtgc 1020  
 cgtggctcat gcctataaac tcagcacttt gggaggctga ggtgggtgga tcacctaaag 1080  
 tcaggagttg gagaccagtc tggtaacat ggtgaagccc tgtctctact acaataac 1138

<210> 219  
 <211> 2112  
 <212> DNA  
 <213> Homo sapiens

<400> 219  
 cccgggttca agcaattctc ctgcctcagc ttccagagta gctgggatta cagggtcagg 60  
 ccaccatgcc cagcttattt ttgtattttt agagatgggg ttctgocatg ttggccaggc 120  
 tgggtctcgaa ctctggctt caagtgatct gcctgccttg gtctcccaa gtgctgggat 180

```

tacaggtgtg aaccaccgtg tccagctgct gtttactcca ttttaaacaa ggaacaggt 240
agagaagggg caggaagaaa atggcttctt gtttgtggat aatttaggag cccaagagg 300
ctcttgctt cattgcctcg ctcttagag aggacggctt accctttgag ggtcgcttga 360
ggaggagctg atggaagctg ctctctgagg cctggcttgt tttctctctt tgggaggaaa 420
tggctgcact gtcagggcgt gggaggggca tgggctaggc cttcttgagg ctgatctgac 480
agaggacagg cccccaggag cctcctggcc atgctcctgc aggccttagg gtgtgggggtg 540
tgccgagctc tgggcaactg gtccccgagt cttaggaagc ctctcagaga aaacggcact 600
tacctgatg cggagcagca ggtctgcgta ccaggccgcc aggccatca tggaggggta 660
ggccccggcc acccagctat caggcacggt gtcatagaag agagccgtgg acagatcttc 720
cacgtcggtc gtgatggta gttctcccta ggagacacac agatgggtgt ggggagccct 780
gagctggggc ctgggagagc accagcccca gtgcgtgtca tgagtgttca acacagtgtg 840
gctttgtgct gcgcctctgg agacgcctg catcagggcc gcgcaagcgc ttcctgctaa 900
ggaacggctc agatgagctc cggggcttgt tctggacctg ccagagctct ggagaggag 960
cagtaccgtg ctgatccggg gcctgtgcta ggctggctt gccagaggcc tgggtttctg 1020
ctggtttcac cattccagcc acgttccttg ggccggctt acccatgttt accttcagcc 1080
ccaggttcag ctcttgagc gaacggggca tttcgttggc caggatgttc attctttcac 1140
attcttgaag ggcgactacc acgtaggggg tcttttccga tgcctttgcc atgatctcag 1200
ccatgttgaa agtctccgga atcttctcca ggatgtcgtc catcacggcc ttcacctgga 1260
agccagtccc cggacagccc ctgtcactgc aaagagccca cccacccac tgcagggtca 1320
gggagcctgc ccaaaatgtt cccagcccca agtccctggg agggagggaag aggcaagtag 1380
agttgccaga aatgcagggt catgggtgca gccacacatt tgacgaggag agggagcctt 1440
ggccagcgcc tccgagcatt ctgatctcac tacaagtcct tgcagccgag gccatgagcg 1500
catcaggcca cctggctcgg tgcctcatct gttcattccc acgtaccagc ctctgggtcaa 1560
atgtagccag cggttgaggg attgcgaact tgccttttac gtgggctttc tgtagggacc 1620
atgctgggtc caccctgtta aggagtggcc cacacagtgc agtggtcacc tgcaccaccg 1680
tctgtcagcc aattcctgat ttcagtcat agactaagag aaagtccctg acctaatagc 1740
aataagggct cacatcaaga attcagctct taccgggaag tcctgtactt agctagtacg 1800
taatagagcc ttccacatt ctattaagaa gtacaggcca ggtgcagtgg ctacgcctg 1860
taaccaccag actttaggag gccgaggcgg gatggtcacc tgagatcagg agttcaaaac 1920
cagcctggcc aacatgggtg aactgtctct accacaaata caaaattagc cagggtgtgg 1980
ggcagcgccc tgtaatccca gcctgggagg ctgagccagg agaatcgctt gaacctggga 2040
ggcggagggt gcagttagcc gagatcgtgc cattgcactc cagcctgggc aacgagagca 2100
aaatccatc tc 2112

```

&lt;210&gt; 220

&lt;211&gt; 868

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 220

```

agattatctg ttcaaaatat gagtatctac ttagtattct ggttcctttt catggaggag 60
gcacatacta cttgtgtcta gtcagccatc tgtgtttcac atatttttaa aagtgtgag 120
acatgtactt tctagtgtat ttgttttatt ctggcagaga gtacaagttg tataaattgt 180
acgagttcag taaacatgaa gcacatctat ttttattttg tctactaaga tggtagatct 240
aaagtgtcta gcaactataa gtagaccatg gtaaaagtgt ccaataactg gtatgtatta 300
ttatcatatt gtcattcttt cgttgagcaa aatgttaatt ataagttatt ttattataga 360
atgcattcat tgttataaat tatatttgtt gaataaaagc ataactctgat ttttttccc 420
ttggcagcaa cttgagttgg tggaaccaag tggctggatt catgttccct taactgacaa 480
tcataagaag ccaactcgta cattcatgat acagattgct gttctagcca atcaccagaa 540
tggaagagac acccatatga gacaaattaa aatatacaca ccagtagaag agagctccat 600
tggtaaattt cctagatgta caactataga ttcatgatg tatcgttcaa taagggtgact 660
ttaaaatgag acgaaaatca ttaaacgtat ctttgtttta tcctgtattt aaataatata 720
tcatgtacct ttattgaaca aggcattccgt tatatctaatt tttgtatatg tttaaaaata 780
ttttattgta actttgacaa ataaatttgg ggtcatatta tctttatttt cttaacatg 840
taataaagct cacatatttt acattacc 868

```

&lt;210&gt; 221

&lt;211&gt; 2903

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 221

```

caggaaattt gcatataggt ggtggatatg attgactgcc caggccttgt gtctacacag 60
atgaccattc accttctgtg agaaagatgc aggagacaaa gcacagggtg ccctaccatt 120

```

```

gcagcggctc acaagagacc ttcccggcct cctccatgtg tgacacagcg aatcctgccc 180
tgtggtgcag gcagctctct gcatgcctat ctgggaggag cagatatatt ggagttaaaa 240
cctgccctaa ctctcttttt tttgaagaca taatttcgct ctgtgtgccc aggttgaggt 300
gcagtggcac gatcttggt cactgcaacc tccgcctctt gggttcaagt gattctcctg 360
ccccagcctc ctgagtagct gggattacag tcacatgcca ccatgcccag ctagtttttt 420
gtatttttaa tacagacggg gttttgccat gttgccagg ctggtcttga actactgagc 480
tcgggcagtc ctctgcctt gacctccaa agtgctggga ttataggcgt gagccaccgc 540
gcccgcacca taactctcct ttagtcgcag ttcatacctt gccaaactttc aaaacacatc 600
gaggcaatta cagacaagca tgcataccta tgtgcatgta agcatgtgaa catacatagg 660
agtatgaaga cttacatgcc tcttggatag acatagcctt ctctgtgcgt acacgttact 720
tccctcagtg tgcctgggt ctcccagata ctatcttaca gggaaaaaaa ctagtattta 780
gggatgatta ttgtatttgt ttatgtcatt gtgggacagt taaaggccat tgaatgcc 840
tgctcttttc aggacttctt gttgggtcca gctgtacaga ttcaaggtag actacgtcct 900
gctaattgctg ctccacaccc tgtgggaagg tttcagtgct aaatctagaa cagggtggtca 960
gtctcctaac tgaatttgaa tccagatttt tgcagatgc atcctgtgtg ctctctctta 1020
aatcagttgt gaacagggtc atttccagcc tctcgggttc agggactgcc tctgtgccac 1080
cgcagactgg aagacaagga ctctgccag gccttgggat agcctctctg ctctactggg 1140
gccttggggg gattgtcatc aggcaacact cagctccatg gagcttacct gggtttgaaa 1200
ttccacttgg tagacattcc tctgtgttga agtatttctt ttttttggc ataagcctc 1260
ctagcaggct agttagtgg ttcttcagta aagtaatctt tctaggccca cactggagac 1320
agagtgggga agacagctag tgtgtaacaa gcatgctcta ggaggctggc actagaatgt 1380
tacttatgtg ccctgaaata ttcattctgt aaagtaggat tatttctact tagtagcatc 1440
ctcagtagta ttcttattgg taatatgagt gcaattgata ctatgtatat attaaatata 1500
catacagaaa aaacacatga atagaaatgg gtgtgagcca gtactagtta ttatattgta 1560
tgtagtgtaa tctagcgtat attagtggta ctggtactat tattagcagt attcctgttc 1620
atcttgtgta agcctgaaga aagcaggcac ctgcaggctc actatgtttc tgaggctgtg 1680
ccctgagtaa gtgccagcc gggagttaat tctcaggcca gctttacca tcccgtaga 1740
gcctgtgcat taaatgttct gttcttacct gggagcttca cagcagcatc ctggccaggc 1800
atggtgggga ttcatccac tgggcagtg gaaatgtcct aatactagt ggccatgcag 1860
tggactttgt cagctgggtg tggcttccat gttgttggga acaccagta atgatgcctt 1920
gtgctatcga atggaattga ccattccaag gatataattt gattcaaata cgtacattta 1980
aacagaaaaa acaataatac agatttcatt tctctcctga gttctgaatt tccagatcac 2040
aactccagac ataactccag cagccttgag aggagctgc ccatagtata atttagtgag 2100
aatgacctgc aagccttctt cctgttcact taggtctcca caaaagcctt tgttcatgga 2160
atgagacctc cacagtgtat gtttatgcgg acctgataca aacttactgt tcatacagta 2220
tgcactctaa aaatctctt ttttttctt gcagatactg aacggctgta ttcagtgggt 2280
tttcaagaaa tatgtaatcg ctatgacaag aaatacagct gggatgtaaa gtccctggtt 2340
atgggtaaga aggcattaga ggcggcacag attataatag acgtcttgca gctcccgatg 2400
tccaaagagg agctggtgga agaaagccaa acgaagttaa aggaagtgtt cccacggct 2460
gcgctcatgc caggtgcggt tgcctcgctg tttgcagggt tatgtttgtg actattagca 2520
atggttttgt aaatcacctt taaagtctag catagggcat gcttagtttg tctctttt 2580
ttcagtatct aaactaagtc cctcctggtg ctctgaaag agtttggctg atgctgtggg 2640
atgctgtgat tcaattttct ctttaaaagc ttcttaaaat aatatgcgtt agtttcagtg 2700
atctctgggt tcaaaaaaca tttgagtatt gtttatatta ctatatataa agattatgtt 2760
aatgacagaa tgtcttcaaa gtttacctta atagatggtt ttgccttttt cttttcaaag 2820
tcagatatag gattaatatt tcagcaacta ttcaaacttt atcaaattga taagcggcta 2880
aatctcccca aagacgctta att 2903

```

<210> 222

<211> 766

<212> DNA

<213> Homo sapiens

<400> 222

```

cctgtctcta ctaaaaaat acaaaaatta gccaggcgtc gtggtgggtg cctgtaatcc 60
cagggtactct ggaggctgag gtgggagAAC tgtgtgaacc tgggaggcgg aggtagcagt 120
gagccgagat tgcgccactg cactccagcc tgggcaacag agcaagactc tatctccaaa 180
aaaaaaaaaa aaagatgcgg ctgctgtggg taccacagga ttccctgggt tgcaccaatc 240
catectacca ctgtcccttc ttctccctgc aggtgtccga cccccacatc ctggcaaaag 300
agcgagagag cgcctgtctg ctggccagca caggcggcta cacagacatt gtggggctgc 360
tgctggagcg tgacgtggac atcaacatct atgattggaa tggaggagcg ccactgctgt 420
acgctgtgcg cgggaaccac gtgaaatgcg ttgaggcctt gctggcccga ggcgctgacc 480
tcaccaccga agccgactct ggtacacccc cgatggacct tgcctgggcc ctgggatacc 540
ggaaagtgca acaggtgatc gagaaccaca tctcaagct cttccagagc aacctggtgc 600

```

```

ccgctgaccc tgagtgaagg ccgcctgccg gggactcaga cactcagggg acaaaatggg 660
cagccagagc tggggaaacc cagaactgac ttcaaaggca gcttctggac aggtggtggg 720
aggggaccct tccaagagg aaccaataaa ccttctgtgc agaatag 766

```

&lt;210&gt; 223

&lt;211&gt; 1586

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 223

```

attttttatt taatttccta ttttcacata agttatatatt aagggaggag ggaatttttt 60
ttaaacaagc ttaggtccct tcccagagct catttttcta gttgggtcat cgtgtcggct 120
ggttgtctga cgagcatcgt tacaacacc atgatgaggg gtttgggggt ttattttgat 180
gtcttttctt ttggtcggaa gtgagtgaag gagccaggtc gccctgaagg ttttccaaag 240
ggcttgggtc cagagccacc tggcagactg ccggtggccc tgctgtcggg cccagggccg 300
ttgtcctgct ctgaccacag agttttaatg ttttggtttt cacttctttt aaactggaca 360
acaaatccag catttcaagt gccagaagta taactttcta aggagagaag ggtgtgcaca 420
ttataaaatc tttaggaaaa tgtgaactgg aaaacgcttc ggtcagtttt agtgacatag 480
cctgtgatga tgggtctggt gactattatt gcggaccgtg gtaccagtt ttaggaatgt 540
ggagaaagga attctgttga ttccgttgag gaatctgtag cgtatgcatt cgttctgtta 600
agagcaaatc taggagaagt gcttcagctg cccagtgccg cgtggggagt gttttaacgg 660
atcgtgtcgc aggagagcac agcccagcgt tggggccggg accgctggcg cccgacgtcg 720
gaagcataca ggtatactat gcaagtgtat tctgccaca caaccactgt cttgtttacc 780
tttttttgaa caagaatata tccatcctgc ctaaccctga gtttttggag caccacagtt 840
gtcctggggg ttggttgcct cttgtaggcc atctgacttc ctgtttttta aacgggggtc 900
tggctctgct aaacactaca ggtaggttgg tctttgaagt ccactagtgg agaattgtca 960
gacaagatac ttattaccat gacatctgat gcagtgtcag cagtggggag ttctagattg 1020
atctctgaat gtgatcgacg cccagcaagg acaagcttta aaatgtctgc ggtctgccct 1080
tttgaagcag gactggctca ctctgtcatt gggagctgtc agctgcgact gcaggttctc 1140
taggaggcat tccagaatag agtagcacac tgtgtctgca gttctcgatg accgaaagt 1200
atcaaaaata tttaaaatat ttaaattgtg aaacctattg taaagaatat ttataaaaa 1260
tgatctgtag gcctgtacta atctctacgc attagcaata ttgactgtaa accacatta 1320
aggaaccac tacgggtctg gcagtgcgtg tcccggtggg tgtgcatttt aaaactcgat 1380
tcatagacac aggtaccatg ttccatttcc gtcatgggtg agcaaatgaa ttggcctggc 1440
taccactgtg gtgcgctgct acaggtttga caaaaagata tcatgtttcg atttttttgt 1500
gtgtggacaa caatatggaa gctaaaattg acatattttt atgtaaagt tttctattct 1560
ttgattttta ataaactttg gaaacc 1586

```

&lt;210&gt; 224

&lt;211&gt; 1045

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 224

```

agatttaaca ttggctaaaa gatggtactt aattcaagaa gctgtacaaa gatacctgct 60
ctctggtggt ttaattctgc atttgatgat ctatatcata taaaagatgt gctgtatctc 120
agccttctct tgagatccat gacttttagt atacacttgc taatatgtaa ctgtcaagaa 180
ggaattgatg cgaatttatc tttttacagt aatgtacatg gtatataata atcagccatt 240
tcttgtaggg aaaaggaaat ggagaatttt gtcagtgtta catgggctca cagaaacaat 300
ttaaaattac taaactttca ccagcaatgg gctgtaaatt cagactatcg gccagaaatg 360
actatggtag aagtggtttt agtgaagaag tcttatatta cacctcaggc tgtgtcctt 420
ctatgccagc aagtcctgta ttaaccaagg ctggaattac ttggttatcc ttacaatgga 480
gtaagccctc aggaacacca tcagatgaag gaatttctta catttttagag atggaggag 540
aaacttcagg atatggtttt aagcctaaat atgatggaga agatcttgct tacacagtga 600
aaaatctcag acgtagtact aagtataaat ttaaggttat tgcttacaac tcagaaggta 660
aaagtaatcc aagtgaagta gtagaattta ctacttgccc tgataaacca ggcatacctg 720
taaaagcctt agtgaaagga aagatacatt cacacagttt taaaataacc tgggatccac 780
caaaagacaa tggcggagca accatcaata aatatgtagt ggagatggca gaaggttcta 840
acggaacaaa atgggaaatg atatacagt gtgtaccag ggaacatctt tgtgatcgac 900
tgaatccagg ctgtttctat cgtttacgag tttactgcat cagtgtgga ggacagagt 960
cggctctctg atctttactt gtgcagactc cagctgtgcc tcctggccca tgcctccctc 1020
ccagattaca ggttagaccc aaagc 1045

```

&lt;210&gt; 225

<211> 2153  
 <212> DNA  
 <213> Homo sapiens

<400> 225  
 gctctgtctc ggectgagcc cgcccccgct cgggttgccgt ggttgccgggc cctgccccgcc 60  
 cgccagctcg ctgacagcac gactcagggc ggagggaagt aggtccgttg gtcgggtcggg 120  
 aacgaggctc aggcggccag gcccgcgccg agccgttgcc atggcagccg ccgcccgggga 180  
 cgcggaacgac gagccgagct caggccactc gagctcggag ggcgagtgcg cgggtggcgcc 240  
 ggagccgctg actgacgctg agggcctctt ctcttcgct gacttcgggt ctgcgctggg 300  
 cggcgccggc gcgggcctct cgggcccggc gtcggcgggg gccagtcgc cgctgcgcta 360  
 cttgcacgct ctgtggcagc aggatgcgga gccgcgcgac gagctgcgct gcaagatacc 420  
 cgctggccgg ctgaggcgcg ctgccaggcc ccaccggcgg ctcgggcccc cgggcaagga 480  
 agtgacgct ctgaagagac tgagggactc gggcaatgcc aatgatgtgg aaacagtga 540  
 tcagctgcta agaagatggc gcagatccct gtgcagcttg atgacaaggg ccgcacagct 600  
 ctacactttg cctcatgcaa atggcaatga ccagattgtg cagctgctcc tggaccatgg 660  
 tgctgactct aaccagcgag atgggctggg gaacacgcca ctgcacctgg cggcctgcac 720  
 caaccacgtt cctgtcatca ccacactgct acgaggaggg gcccggttag atgccctgga 780  
 ccgagctggt cgcacacccc tgcacctggc caagtcaaag ctgaatatcc tgcaggaggg 840  
 ccattgcccag tgcctagagg ctgtgcgtct ggagggtgaag cagatcatcc atatgctgag 900  
 ggagtatctg gagcgccctag ggcaacatga gcagcgagaa cgcctggatg acctctgcac 960  
 ccgctgcag atgaccagta ccaaagagca ggtggatgaa gtgactgacc tcctggccag 1020  
 cttcacctcc ctacgtctgc agatgcagag catggagaag aggtagcaag agaggctccc 1080  
 tgccttctct ccaactgccc accctgcccc actgctgtct cagtaccaag aaaaagccca 1140  
 acatctggga cttggagctg cacttgtctg gtgaggacct tgcctcacc cgcagatgcc 1200  
 gtggggcaga gatgctctct ctccacggcc tcagagccac tcccagccac agtttccagc 1260  
 atctctgtgg acagggacca cagctcccag cttcttccag ttctcgagc accagaccag 1320  
 cctctgcagc tgcactttca gtccgcagac ctgcgctatc tcagcagacc tcacttgccc 1380  
 catggccttc atggcgcgct ccaggcctca gacccttctc tgtgttccgt cctggccatg 1440  
 ggcttgttgc agtcagcagg tgtgggctta ggcgggcacc ctgtggccag gggtagtgcg 1500  
 tgaggccctc agttggctct gtgcctctca ccagcactta gacagacacg tcaccagact 1560  
 ttcaaggaga tactgcagtg agtttctctg gttggaaggg gaggggttgg gagtcccaga 1620  
 ccttaaaaat acaaggtaa gagggacccc aaagcaaaaa attccaacc ttttctccc 1680  
 agtcattgaa acacaaaac tattataccg gaggggtgtaa tagttttgct gccagttgt 1740  
 ggtaggccag tagtggcctc ccaagatgcc catgtcctaa tcccaggaac ctgtcaaaat 1800  
 taccttgat ggccaaagg gctttgcaga tgtaatgaag ttaaggatct ttcgcccagga 1860  
 agattatccc agcttgttca ggagggtctg atgtcctcac ccgggtctgt ataacagaag 1920  
 agcaggtgac gggagaggag gttggagggt tagcgatgga gcaggaaact ggagttgagg 1980  
 agggcagctc aagccacaga gtccaggcca cctcagagcc aggaatgca tctcccaca 2040  
 gagccctgga aggccccagc cctgctccca cctggactgg ctcagtgagg ctaattttat 2100  
 aattctggct gantttagaa ctctaaggga ataaattgt gttgttttaa gtc 2153

<210> 226  
 <211> 1704  
 <212> DNA  
 <213> Homo sapiens

<400> 226  
 tttttttttc catatttctt ggctaagcga ttcactctgt aggtttttca caaaattggt 60  
 gccatcgcca aaaatatcc atttactgaa aaaaatccac atataagtgt actcacgcag 120  
 ttcaaaactaa tgttgttcaa gagtcaactg tataaaagggt attaatatgt ctggaaagag 180  
 atatgtttcc aatttaacag acactaccaa tgaggagaag agttgggcta ggcaggaaac 240  
 ttcaaatatt ctttttttac tttatatatt ctattgtatc tcaacttata acctgtggac 300  
 caggtttatt agaagaaaat gcagattcct gaaacttcc tgcagaccca tgagtgaaca 360  
 tctcaggag atggagttcc agagtctgct ttttttcata gatgtttctt tgtcatctct 420  
 gtgtatatct gagtttcagt agcactgcta atcaattgtt tgggggtctc tctccttcac 480  
 cagcatgttc ttgcaaaact aaccaaacac atacaagcg caaacagtac aatagtgcac 540  
 tgcaccttca tgacccttac ctgttccagc ctcttctac ctcttcaca tgtgatagt 600  
 gtgtacatac ccacagacag aaacacagag acatgtttgg aagccagtgt ggatgccctg 660  
 tgatctgtgt gtacacatga caagtgcata cacacgcaca taaaggaaac cagagacgtg 720  
 tttggaagcc agtgtggaca ccctgtgac tgtgcgtaca catttgacac ctgcgtacac 780  
 actcacagac agaacacag agatgtgttt ggaagccagc gtgggtgccct gtgatctctg 840  
 catacagtg acacatgcat gcacaggccc atacaggagc agagagacac atttggaagc 900  
 cgatgtacgc cctgtgatct gtgcgtacac gtgacacatg cgtacacacc cactgacaag 960



```

aacacagaga cgtgttttga agccagtgtg gacgccctgt aatctgtgtg tacacacgtg 1020
acacatgcgt gcacacccac tgacaagaac agagacccat ttggaagcca gtgtgggtgc 1080
cctgtgatct gatctgtgtg tacacatgtg acacgtgcat ccacacccac tgacaagcac 1140
acaagagaca catttgaaag ccagtgtgga tgccttgtga tctgtgtgta cacatgtgac 1200
atgggcatat gcacctacag acagaaacgc agagatgcat ttggaagtca ctgtgggatac 1260
cttgtcatct gtgtgtacac atgagacact tgcatacaca cccacataca ggaacacaga 1320
gacacgtttg gaagccagtg tggatgtcct gtgatctgtg tgcaccgtta cacgtgtaca 1380
caaccactga caagaacatg gagacacatt tggaaagctag tgtggacgcc ctgtaatctg 1440
tgcatacaca tgtgatacgt gtgtgcacac ccactgacag gaacatggag acccatttgg 1500
aaggcagtgt ggatgccctg tgatctgtgt gcacacatgt gacacgtgca tgcacatcca 1560
cagacagaaa cacagagaca cgtttggaag gcagtgtgga tgcctgtgta tctgtgtgta 1620
tacgtgacac atgcatgcaa acccactgac aagaacacac agatgcattt ggaagccant 1680
gtggacgcca tgtgatctta gaaa 1704

```

&lt;210&gt; 227

&lt;211&gt; 2267

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 227

```

gtctttttta aaaacttcag atatgggttg gttatttctc tccaatgctt ttttaattgt 60
tctgatataa agtgaagga ttactgtttt cattctgttg ccttcagtct tagttcactt 120
gcacatggat tcacataaac tgaatgggtg aatgtctggg caaccaaacc tgttggcttt 180
tgagaaaact gtcaaatact ttaacatcaa actgttgcaa tgcagggtat ttctttgatt 240
gttcttcaca aaatatgggt aaaccaagta tatatcatgt agctagcttc agtaaattgt 300
gttaactgag gcaaatctag tctacataat tcacagtacc actattttat ttttaattgt 360
aaagccttaa tatagtggta aactgaataa aagtaaataa ttattattag aatggtaact 420
aagtcattaa atttttttgc agaactgaaa cttgtatggt attagtttat tttcttagac 480
cagtgttaata attgactgta aatagaaata taaatgtcac tttacagtta gatgtatcac 540
agtcgtttca ggagaatttt tcttatattg ttaccttgat tcattgttta aaattggtag 600
gatttgtata gatataggat agtgttttat ttatacttta tcataagcca taatcatttt 660
aagaatactt tattggatag atttttagtac tttttaaatt cttaaagttct atttttcttt 720
tcacttcccc ttcttcccc ttataagatc atttccatgt ctttgttggg gatctcagcc 780
cagaaattac aactgaagat ataaaagctg cttttgcacc atttgggaaga atatcagtgt 840
ctctgaagaa tggacagaat tgcctggct aactacaagc tacgggtcac agtggataaa 900
tagatgcccg agtggtaaaa gacatggcaa caggaaagtc taagggtatg ggctttgtct 960
cctttttcaa caaatgggat gctgaaaacg ccattcaaca gatgggtggc cagtggcttg 1020
gtggaagaca aatcagaact aactgggcaa cccgaaagcc ttccgctcca aagagtacat 1080
atgagtcaaa taccaaacag ctatcatatg atgaggttgt aaatcagtct agtccaagca 1140
actgtactgt atactgtgga ggtgttactt ctgggctaac agaacaacta atgcgtcaga 1200
ctttttcacc atttggacaa ataatggaaa ttcgagtctt tccagataaa ggatattcat 1260
ttgttcgggt caattcccat gaaagtgcag cacatgcaat tgtttctgtt aatggtacta 1320
ccattgaagg tcatgttgtg aaatgctatt ggggcaaaga aactcttgat atgataaatc 1380
ccgtgcaaca gcagaatcaa attggatatc cccaacctta tggccagtgg gccagtggt 1440
atggaaatgc acaacaattt ggccagtata tgcctaattg ttggcaagtt cctgcatatg 1500
gaatgtatgg ccaggcatgg aaccagcaag gatttaatca gacacagtct tctgcacatc 1560
ggatgggacc aaattatgga gtgcaaccgc ctcaagggca aaatggcagc atgttgcccc 1620
atcagccttc tgggtatcga gtggcagggg tgtagtaaaag ccgttggtta cttaaagatt 1740
ctaaagccag tggcttgagg ctacagggag tgtagtaaaag caatgtattt atttaaaaga ttcattttta 1800
tatcaaatca gtcagtgcga atgtcagata caatgtattt atttaaaaga ttcattttta 1860
atcatgaaat tacttatcat ccacattgtt ttaaaaagaa acaagatgct ggatgtctgc 1920
caatttttgc cttcattacc ttttttgata aagtttctca gatccttggt tcaaacacaa 1980
atgcagggat tgctgccact ttttaactat taagaggcag aaaattgcac aatattgaac 2040
ttttttccac tgaagtagtg tgcagttcta gtttgcattc ctgatatgat ttaaaacatg 2100
taatataaag atgttaaaaa aaaaaaccaa aactgtgcag agtctagaag ttgtttgtca 2160
tcttcagctt gtgcacaatt ctgttttagg ttaaaaaaag gcattgtttg agctgtccca 2220
tctccactgt tatccctttg gggtttttta atataaatta ttagtttaca tcatttttgt 2267
atctacatct tttttcacaa atttgccttg ccttattaaa gttctgt

```

&lt;210&gt; 228

&lt;211&gt; 2682

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 228

```

tggtctcctt ggagcccctg ggggctccta gtgattgact tcctttctga gtgcacggga 60
agcagctgtt caataatcca ttgtgacgtt tggccagaca ccgacagagc ttgtctcctt 120
gcgacccctt tgtccaaatg cagggatgac ctttcccctc tgtgaccagg aaggatgcaa 180
ttgttggggg tttcttacat tagttctctc caggcctaaa gacgccatca catctagagc 240
tgccggcggc ctctcgccac tccctctcct tggcttcttc ataattgatat tgatttttcc 300
tccattttta gaatccatct ccttgaggga ggagacagaa actccatccc tctgcacaga 360
accattttca aaaggaacag ggggttgagg tgaggcccag ctggcctagg agaggccgcc 420
tggctggggc gaacactggc tctggcctgg cctggctact gacccttgcc tgggtcctca 480
ggaccaggag aagaaggggc gtgtcttttc agatcacaga acactctttg gcccctagtc 540
atgtgtcagg atgagagggg cggctcttga actcccatga ttcaactgaa tgttgcatct 600
tctagatata atgacagcca gatctcaggc catcattana aagaaagaag gtgaaattcc 660
acacctgtgg gttacccacc agcggcagcc ctctggctgg agatgtatct tgggtctcag 720
ctcctgtttg tgtcttgatt gcagtggcat cagggggacg tgtgtccact gaccacaga 780
ggcaggggca gctgggggaa gtgctaggag agggggggca ggcaggaata gacctgtct 840
cccagtgcat cccctgagca ggctgagcca agagtggctg actgaggatt ggctgggac 900
aacgttccat tcgccgtgtt tgagggtcac ccttgccag gtgcgtcact tgtcctgggt 960
ttccagatgt gaagggtggg acgcaggctg gtatgagatc ctatagtgca gagcatgttt 1020
tagcttattt aagatccttt gatgggtccc ttctgcaaca ggctcggtgt gatgtgggtg 1080
taagtcaagg cctgggagcc cagacgtgat tactggcca ctctcacttt tgggggacac 1140
atgaaacagc ctctgtctgt ctccactgtc gccctagag tgtattctct ctctgtct 1200
tctgaagtgc cagacctcat cacacacaca gcctctgtct tacgagctgc aaaggccctc 1260
agtgctcatg ggatcaagggt catagcttgg cttgcaagat cccagggtgga cccagccct 1320
ttgtctggct tctcctctgt ctacgcgtg atccccgcag cccacactc caccactca 1380
gcacaggctg ttccctcggc ctggaacacc ggccttgggt acctctatac cctgttctc 1440
ctgactctg gccagttgct gctgaggctg tgaaggctct acacggctca gcaccggaa 1500
actccccaa cctctagga tgagctgagg ccccatctgg gttccccagg cctttgtgcc 1560
tgtctggcca tcagcccgca tcatagggtg gcattgtttc tctgggttca tttgtgtccc 1620
cactaagtgc catgccccat gagggctggg atggttgtct tgttcacagc tgtgtctca 1680
gtgcacagga cagggtgggc ctgggtgact gtgagttgcc ggctgggtgga cagatgcttg 1740
gaggatgtgt gacttggggc agggcaactc ctgagtcctg atctccccct ctgcactggg 1800
gtcatggtgt caagtgcagg gggaggggag ggaaggggaa caggcagcat ggggaggggc 1860
ctgcagaggt gtctggcagt ggggaagctg tcattggcca tagtctggag cccacatccc 1920
tgtactgaca cgcagcttct agctgtagcc agaactgggt ctccagccaga gtgggcagag 1980
gtggccagga gacgagacag tgcaggagc tgggggacag gggttagggg tgggtgagaag 2040
gtccccctcc tctgtctctc ttgacctgc atcctgtctc atctccaccg gctccaacca 2100
ggagcagtag cccgggagcc ctctccttct tctgggtcag gccgtgggtcc ttacaacctg 2160
gactctgcat gagaatcacc tgggagctgt gaaatgtccc acaccaggc cagccccccg 2220
agtagagaca tctgaccccc tggcgtgggc cccgggcata agtagttcat aaaactccca 2280
ggagattcca gcgcattggc aggtttgaca gccgtcattc cagggtgggtc ttgggtgacct 2340
gggttttctt ggagatgctc agcagcctgc agagcccgcc cagccagcgc acagtgagcg 2400
gctcgatggg aaatctcccc ttctcgcct cctccacaa aaatcctcac cagaaacgag 2460
gaagcacttc tttaaatggt tttgtttttt gaaagagttg cacatgcctt tggcaggaac 2520
tccaggcagc acagatgggt acacagtgga agaaaaatca gtccctggccg ggcgcggtgt 2580
cagcctgtc atcctagcac tttgggaggc cgaggcgggc gagtccaccg aggccaggag 2640
tttgagtcta gcctgaccaa catggcaaaa cctcatctct tc 2682

```

&lt;210&gt; 229

&lt;211&gt; 1612

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 229

```

gtataagggt taaggaagggt gtctagtttc agttttctgc atatggcttg cctgttttcc 60
cagcaccagt tattaataag ggaatctttt cccattgtct tattttgtca ggtttgtcaa 120
agagcagatg gctgtagatg tgtggtgtta tttgtgagac ctctgttctg tcccgttgg 180
ctatatgtct aaaaagcaga agtataaaag agctagaact aatcttaaca ctagtctcac 240
cagttagtaa agcaaccagc agcagtgaag aaaatggcag attttcctgt tgggtgtgagt 300
ggactgggtc caagaaagtc tccatggggg agcagaatgt tgcattgcaa atttagaaat 360
gggttgatat tagggggatt gtttatgttg gagtgtctaca actatactca agccctgagt 420
gattcagggt ttggtgacag atgactcact gacaagcctt ttttggaac tgctattaat 480
gaaatcctgt ggtgacaata atgaacatt tgggagggtt tggttgatto ttgttgcaat 540
aagttagttct ttggaacaag aaagaagaaa actgaagggt tagcagttag ggaagaataa 600
ccttttaaga ttcttttttag ctgctagttt tacagaaact ttgttctgaa acaagattgc 660

```

```

atcttctggc ccttcaactgc acttttattt cttcaacttt aatatttttg tagatgggtt 720
ttcctgattt tggccatgct ttttgatat gctgaaatta tgaaaatctc tgacttagca 780
gggctgcagc attgacagaa caatggaata gttttcattc aggctttggc attgtggcta 840
agcggagtgg gtgtcaactt gtgtactaga actttgaaat atcaggaaga ttcttttgtt 900
ctcttatggg tcttcccagc tagcaagaat gtgcctaatt tctttctttg gcttaagcct 960
ttgatcccta gtaaaatact tatacaccat gagtaatcat ctacttcatg tcattgatat 1020
gattcagatc ctttctgtaa tgtagatttt tgctaaaggg aagactgcag aagggcccta 1080
atctactagg gatggacaac agaaagatgc agacacatag ggagaagagc ctacttacct 1140
acttaatttt aagactgctc cttttttata tggattaaga actcagggtt tccctaggat 1200
atcttttagag gatattatct aagctgatat ttttggcagt ttttaaatca tatttcagta 1260
tttttgaaaa taacatttat gataaaaaaa aaatatgtac tggccaggca cagtggctca 1320
tgtctgtaat cccagcactt tgggaggcca agatgggaag atcgcttgag cccaggagtt 1380
cgagaccagc ctgggcaaca tagggagacc tcatctttgc caaaaagtaa aaaaattagc 1440
caggtttgga ggtgcatgcc tgtagtccca gctacttggg aggttggtgt gagtgcactg 1500
gtcacaacaaa agtgaagcag gagtatcact tgagcccagc aggtcgaagc tgcagtgagc 1560
cgagatggca ccactgcact ccagcctggg tgagagagta aaaccctttc ac 1612

```

&lt;210&gt; 230

&lt;211&gt; 1512

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 230

```

aaaaaaaaaa gaaaagccat cctggggccac acgtagccca tggggctgca 60
ggttggacaa gcttgctttc aagcttcaca acctactctg ctcttttgtc cctcctccc 120
atctgataag tttatagtta caagttttat tgttgtttga ggtagtccat ttcacacttt 180
aattactagt tgtgtaatta tgttttgcct gagttcccat acagctaatt tgtttccatg 240
cttccatgca ggattttatc agaaacttta aagtatccta gggaatatta ccagtgcaga 300
ctagtgttat ttgtgcttga tgtattctct gttttaatgc attgtgttaa acttcctttt 360
tctgagacac catgtacat aatttcttaa ataaactgaa ggacacgca ttacatttca 420
aatgtctcat aagggaatat aggaacagag aactaaccat gtatgtaagg aattatgaat 480
tttatggaat taatgtataa aatctctttt atgtgtattt tataagggtg cttggagccc 540
gtactttaaa attctcctat tttaaagga tgtctgtatt tgaaactgac cagatggcct 600
agataaagtc ttgagtcata atattagggc ctttcagaaa aatctaagtg ccagtagatt 660
ttcaaacaaa ataggttagc aagggaatag aaattgatct ttggcttgaa ataaccagta 720
acagacttca gtgaatgttt tgtggtgtga gggctatgtt taagagggag ctctagttag 780
ttcgtatgct agaccacaga ttctaggagg gtgggaccca ttcattgcga tgaccctgca 840
tcttggttcg tgcctgccac atggttagatg cttcgtgaat atttgtggaa tgaatgcata 900
ctgtggccta tgggactcac catggtgata aacggtaaaa catgcacatc ttcaagacgt 960
cattttaagt gctttggggg gactgggcat aagataaaa taggattgaa gatgggtgtc 1020
ttgcagagat acatttcagc caggaaactga aatgtgggta agatttccgc aagggaaggg 1080
gtaggcatgg ctttccagga ggtatagaca agcagataac aagtttgagc aacaggaaga 1140
tctgtgggac ttcattggctt gtatcttgtc atatatgaag gtacatcccc tgtgtgtatg 1200
gctcagtcga tgcctcatatt ctttctctca agttgatgca cagggccggg tgagtcctc 1260
agcacttttg gaatccgagg caggaggatc acttgagtc aggagttgga gaccagcctg 1320
ggcaacacag cgagaccttg tctctacaaa aaatttaaaa atgtgctggg cgtggtggtg 1380
tgttctgttt tttttttttt tttggggggc tggggcgggg ggggtgcttg gggccggggg 1440
ttcagggctg cgggtgggctt tggtagcgcc cctgtgctcc ggccctgggtg gcggggcgag 1500
tcttgtctc tc 1512

```

&lt;210&gt; 231

&lt;211&gt; 3163

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 231

```

aaaacacaga atcttttcca agggccgctg ggtatggtgt gatttgcctc tagcacttct 60
ctttgttcat ctctacagc ttcattccat ctctgccc gggccctgat gctcctcaa 120
cactcaagca tatgtcctcc ttgtagctcc tttctgtttt ttcttgttgc tgttttggtt 180
ttagttggct gtatcctccg tgagaatgtt cattccataa agaacaggat ttttttttcc 240
ccattttgtt cactgccatc tccagcctct cgattcccat tgtactgttg cctctcttca 300
atttgagaaa tgcagaccta tagaatgaag ttcaggctct ttatcatagt atttgggtct 360
tctccacaat gccagttcc ctgtcttttg gccattactg tttgtatact cacaggaaac 420
ctagctacac ccagttatac catggctatg tctttgtccc catggctgtg aaggtagggac 480

```

```

atgctgaaaa gctctttcct catttttact tgttaaaggt ctattcctta tctttaatgc 540
ccaaatggat tgaacaatat ttttagatttc tcccaataaa catttatcct cctttcctct 600
gaaatttgct gccacttgta tagcattttat cacatttcgc ctttgtaagt tatttgtaaa 660
catctttctc ttttggttatt cttgtaaaat cttgacgat ggatttcctt tcatttcaga 720
tctattgttg catccctagt tatcaccttt tacacagtgt ttagccaact tatttacaac 780
tagaaacagc ctttaagttca tatttcaaat gatctcaatt agtgtagaaa gcttttatta 840
tttctctctg tgtgaattat ttacatgaac aagaaataac atgcatatga caacaaatta 900
ggatatgtta ttttcataatt aaatgtccct aagataataa gcaatgaatt attaatgtat 960
cacacaggca tatcttttat tttatttttt gttttttcaa atgtaaaaac aaaactaaat 1020
ttgtcctacc agaagctcat aggggatgtt taggctttca gggaaaataa ttatttttac 1080
ttagagatca gtagctaaat ataaaaaaga acttaaaatt tgcattgtgc ccccaaaat 1140
tatgccatgt atttggaatg tgtatttcac atatgttggg gtttaaaata tttttccagc 1200
agtatagaaa aacagaagaa aatggactta catttattgt taaagcaacg tgtattttat 1260
atttttatat ttaaaatgct tttgattata atagctaagg caattttata atgcagggcc 1320
caagtctcat ttctttctg ctcttccacc aggttaagtag tacttcttga tttaatgcac 1380
tgatattttc tataaagtgc ttagcatagt actatgtgct taataggtag ttagcaccac 1440
ataaatta gcttctatta ttcataaaga agtgaccttc tcttttcaga gtccttcttg 1500
gcctgtcatt tatcatatta ttgccttgta ttatttttat gtcttttcca gctaagtgc 1560
ctttaatatt gtatataatt ttgtacattg taaaggatta ataaattatt tatccactga 1620
ataaataatg aacttgtgaa cattctttta aaatttaagt agctctgaag tttgctcata 1680
ttgagcccaa acatggcgga aacttctgag catagacaag ttaatgccat aaataatccc 1740
agaaaagcca ctggacacag aacgagcttc tggggatgaa ccagaagtca catttgctg 1800
cctacatttt ccttgccggag gcagttctac taaattaaca ggggatatat tagcatgttc 1860
agagacctct aaggtagagt aaaatccata gaatgccac ttccactaca tttgatagag 1920
ttaccatttg ggttaagatt agttactcag tttatttatg ttgtaaatga cttatttggc 1980
catttgtttg gaaaggtaga aagagcagtg aagagaatga gagactgcag ggcagacaaa 2040
cgcttctgtt ttctgactgt gcactcacat gagagaaaga gagcctttca aaaagtattt 2100
gcttgggtgc ttcacatgaa gatgtgagct gctgaactct gggagctggc agccagcctg 2160
aatatgtcct ttaaagtgtt cctacctgtt aaccactgca gtgcttggaa tctagtaggc 2220
attcaaggaa acttggatgt atagatgaca aactggaagt gacaatgttc caggtagagg 2280
agatagcttg ctttttatgg atggcttagt tgcaggcctc cattgggttc tcccaaggct 2340
cagtgttttg cctggaagtt aagccatttt cagatctatg agtgcatagg taatgtaacc 2400
attacattat tattgttcta tttcatttac ttccaagtaa acccagctct tcttctcat 2460
gattatattg attgtattca tttccacaat gattcaaaaa tactgtgtgt ctcagaattg 2520
catggccctc cattggacaa gtggggctaa aatgtaagca aggtgggctt cctagagaag 2580
cctacagcct aagggggaga tgagacctgc ttacatggct gtcagtacag gacagaggag 2640
gcgcgtgcta cacagtaaag gacttcagag gagggaaata gtctgtacag tctgcaggat 2700
gccaaagcac ttcagagaag aagttgcatt ttaagcaaga ctttgaagga gatgttggat 2760
ttaaacaag ggactgggtt ggaggtttag agtgaggaca ttgaagagaa agcaacaggc 2820
atagtaattg gtaactttac agtcatatca attaatattt gttaattaaa agtgtaattc 2880
aggctgggtg tgatggctca ctctgtaat ccdagaactt tgggaggcct aggtggcag 2940
atgacatgag gccaggagtt tgagaccagc ttggccaaca tgggtggaacc ccatctctac 3000
ttaaatgca aaatttaacc aggcaagggtg gtgcatgtct gtaatcnnng ctacttggga 3060
ggctgaggca caagaatcac ttgaaccag gaggtggagg ttgcagtggg ctgagactgc 3120
ccactgcac tttggcctgg gtgacagagc gagacctga ctc 3163

```

&lt;210&gt; 232

&lt;211&gt; 2376

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 232

```

ctaaggaatc aaaactgttt gatggccctg gatagaatat ctctattttg agagtatctc 60
gaatttatca ttaagaaaaa aattcttcaa tgtttaatca acaacaagg gccagaagc 120
tctctgctaa tcataacca atttcttact atgaaatcca tcagaagttt aacatggctc 180
acttcoctta tatgttcagc tatataactt tgtggcacac actgtcctta ttatccacaa 240
aatgcagata atgtcaccct aacaagccta atgttttact gtccacttgc tacttagtag 300
gtaacccaaa attattaact tccctaattt ttggaaatta ttagagttcc agaattctgc 360
agttaagtgc cagctgtatt ctaagagctt tcagacatta aaaggttaagg aagaatacta 420
atttataatt tagaaaaata gccctacata aatactctac aaatctttaa attttataaa 480
aagtaaacat gtttacattt taagaaaata catttacctt cagttgtaca tcctaaaatg 540
tagtctgttt aacttccatt aagatacagt tctgtgtaat tcttggacat tttacctctt 600
aattgtctct ctcattgtaa tatgaaagta atacctaccg tacaaagtta ctagaaagtt 660
taaatgaagt aacatatgta aagactcttg taaaattaca ccctattaat atttggtagg 720

```

```

cacctcaatg ttttaatttc ctaatacagc aataatacca taacttaaca gaagctgccc 780
tccttataaa atccatattt tgggaatgtt aaagggatat gtagttttaa gggaattatt 840
ctttaageta tggaaactag tactaggttg aattgttagt cgtgtctaaa atttacgtat 900
gtcttcttac gctgtgattc acaaaatgag acacattgcc gtatcgagcc gcatccactg 960
tgaattcatc agactcatag tccagatcaa agagatacgt gattcccttg ttgtcataga 1020
actgtcctcg tctttcagct tcttcacttg tgattaccta aacagaaaaa actgtaagta 1080
tattacgtag ctactgaacc aaagaagcat tcatctacct atctactaat atgcgaatac 1140
ctacaaatat ttaaaaagta agaaattcag gtgtcatcaa agcaaacatt cacacaaact 1200
aagactcaga tgcaaagagg tgggaaaaatg aggggaagaa aaatgataat gcaaaagact 1260
gatgaccttt tttttttaa cagggctctca ctctgtcact caggctagaa tgcggtggtg 1320
ccatcatgac tcctgtatc ctttaactcc tgggatcaag cgatcttcc tgcctcagct 1380
cctgactagg tggatcacag gtgcataccg ccatgccag ctaatgattt agtttttata 1440
gagatgtggg gtctcactat gttgccaca ctggtctgga actcctgggc tcaaagttag 1500
ccttcagcct tgacctcccc aaagtgtctg gattaactgt aactgggtgg attatgactt 1560
tttaaacagg gatttgagca gtacattgga acactgcatt actttcatta taattaggat 1620
gttcaaaaag ctatacaact atagctctct acaggacaca actgaatgtt aaggactaaa 1680
tctgcaagta tatgtcttaa atatgatcca ggcacatttt tcctataact tatatatatg 1740
cagttacaaa tggaaaattg ttaaaaatac aggggagaag ctatgttaac ttgggaatgg 1800
aaggttttgt tttgtagaa tatgttattt tcatgcaatt ctgtaagtct aagatcgtca 1860
tctacagttc tgctcttaag aacacaagtt ttatgacacg ctcggtctaa gaaacaaaaa 1920
gtgtctaaag tactttatgt taccaacca aatttgctgc tgcactcatt aagaatgcaa 1980
cttaaaaaat tttgttaac aaaaagagta atttgattat acaagatctt gtatactgaa 2040
taattttata taatctacca ctgtctaaaa gtgtaagaat caaaacagcc atctaattta 2100
gtntcagaat tatagatgaa tacagataat tataggtgac ccaatcccaa ctaaaaaatc 2160
cagagttgac aacgccagat atgtagccat gcttgtgtct ttctagtac agctcaacct 2220
acccttcagt ttgaagcagt gtggtgccat ggtgaagact actgatgtta gagctctgaa 2280
tctcggttct tactactatg tgacctgtgc gaccttgggc aaggtagtca atgtctctac 2340
aataatggac ataacagtac tacgtcgct tagaaa 2376

```

&lt;210&gt; 233

&lt;211&gt; 1789

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 233

```

aaaacagggc tggagcagtg cctactcaat agaatcggtc atcatgcaaa taaatgccac 60
cttagtcaaa ggcaaaagcca gagtgcagtt tggagcaaat aagaatcaat ataacttagc 120
aagagcccaa caatcctata attccattgt acagatacat gagaaaaatg gctgggtacac 180
ccctccaaag gaagatggct aaatatgttg actggtgtat gtttggacta atgttgcttt 240
aaagaaaaatc tttccaacat gcagacaaaa gctttgagtg cccctattac agcagtaccg 300
aagatgttag ttaatagata ttttagtgga taatctgtca tctgacatcc agtataagtt 360
acagccttcg cattttgctc atttttagata tcttgacttg agcagtgggg cctttactgt 420
atttttctcg ataaatacac atactggcca ctccttatct ctttttcttg aaaagtgaac 480
tttttaagc agccaagtca acatcaggct actgaagtgg aggccttagg gtaactttcc 540
tatattgagc ccatgggtta caaggatttg caatatattg ttccatttac agccaatata 600
ggtttaaatc atgttcaata ttggtttagg aaatttaagg ccttctaaat cataatagct 660
ctttcatgtc taaaaccatt ttatgatatt gccaaaatgt gataggaaac ctactcatta 720
aattgttaaa ctttttaatg actatgtgaa gatatgaatt gtttcctgaa gataatactc 780
ttaattgagt tgtattgtac ttcttaggca aagcagtgtt aaaactgtat caattaaggc 840
ttgtgagtag tgatttccac tggggcatca gagtcttggc tgggctgaat ctgctgcttg 900
ttgggtcagt gtttcttatg aacaagagcc acagtacaga gcttcaagtt atttaataa 960
ctaagtcac ttagctttcc atttattaac gggatgttgc aatcgtttgt aaactaataa 1020
acttataaag tgattggcac aaagactcct tgagcaaaag ctgtgcagtt aagtacaaaa 1080
agataacttaa tttgggact ctacagtaa tttttgccat gtcaaaacaa tggcttttac 1140
attgaaagat taatagaac tctacatag ttaatttttt tatagaacct gactcaaatc 1200
aaggtagctt ccattttatt gccttacctg aatcagtcct ttttggttgg taatagattt 1260
ttttatacac ccacgtttga tttaaaagta aattctagtt ctttaagcact ttttaacaaga 1320
aatccagaag cacatttttc tgcacaaaca agttacaaag ttcaaaagtg tttcttgtgc 1380
attagctttg agattcagtt ttttaacttg taaaccacat ctgagagact tgtcattttc 1440
acattgtgtg tgttttaatt cttttgattc cattttggtt aagagagcag taaatagatt 1500
ttctggtatt cttgttcaat tgattacatt tgtataaagt tctgattgcc agttgctcag 1560
ataacaagtg acaaggcaga attctttaaa tcagtaaaagt tcccttaagcc taaggctaaa 1620
tcttgaatac attgttgaat tctttaatat cctgatggca agcagactga tagctgcaca 1680
tttggcatgc tttgtttaat ggattttatt ttaattgca gatttatttg gcaatgtaca 1740

```

gtaaattttg taaacttgca tcaagtttat gaataaagaa ccttagaaa

1789

<210> 234

<211> 1182

<212> DNA

<213> Homo sapiens

<400> 234

```

gtagaccctg cactcaatgt gcttaccctg taggagcaga gacagataag tcagatttca 60
gtctggggca ggtggagcca tgatgaagcc ttccccacac ttgtgagacc actttgggag 120
atggggaggca tccccagct gggtcagctt gaaccaccca gcaggggtga gcaggtcttc 180
tgatacagag gttttcagag acaccgggct ggcccgagac acctgagctg catcagagaa 240
caatagggttc tggggcctgc tgcggctgag gtgcccgggtg ggcacgcagc tgggggcacc 300
caacaatgac caccagggca ctgggtgtca tcgggtgccca ccccggtgtgc cagggaatgt 360
ggactcagtg cctgccatgt cccttgctcc gtgcaagcag accacgtctg tgctctcact 420
gaatcctctg gagggacacc tctctctacc tctgtttccc tttggtagac gtctgataac 480
acacgtcgta ttctcttcac tcagaattca tagatgtcgg ctgggtgcgg tggcttatgc 540
ctgtaatctc agcactttgg gaggcgaag gggacaggat cgcttgagct cgggaattca 600
agaccagcct gggcaacatg gctaagtctc ctctctacaa aaaaaataca aatatattag 660
ccaggcatgg tgatgcataa ctttaacccc aactaatggg ggggctgaga tgggtggatc 720
acttttgggc ctgggaggcg gaggtagcag tgagtggaga tcacgtcact gtactctagc 780
ctaggagaca gagcaagact ccatctcaaa aaaaagaaaac aaaaaagaat tcatagatgt 840
aacattttgc ctttgatact tctgatcttt gttaatcatg aaaaatactc actgggcaca 900
gtggctcacg cctgtaattc cagcactttg ggaggccgag gcgggtggac ctctcaagt 960
caggagtctg agaccagcct ggccaatgtg gtaaaacccc gtctctacta aaaatacaaa 1020
aattagctgg ccatgggtggc acaccctat aatcccagct acttgggagg ctgaggtggg 1080
aggattgcac gaacctggga ggcaaaccga gcttctggct caccgtgagc tgagctcacg 1140
ccactgcact ccagcctggg caacagagcg agactaagtc tc 1182

```

<210> 235

<211> 1254

<212> DNA

<213> Homo sapiens

<400> 235

```

gccagtccaa gctccaaact tgaagaattc agagtccgat gttcaagggc aggaagcatt 60
cagcatggga gaaagatgta ggctgggagg ctaggccagt ctctcttttc acatttttct 120
gctgtcttac attctagcca tgetggcagc tgattagatt gtgccattc ggggttaaggg 180
cggtctctcc tttcccagcc cactgactca aatgttaatc tcctttggca gcacctcac 240
agacacaccc aggatcaata ctttgtatcc ttcagtcca tcaagttgac actcagtatt 300
aaccatcaca gtaacgtaca aaaagcaaca tatattagta agatatctga tggcttttta 360
aaaattctaa aactttgttt ttaattattac tatgggacct ttcattaaaa agaatggca 420
acatctgatt caccattat cctaaatgtg ccattttgtg gtccattact tcagaccttt 480
gttttttttg agggtaggca ctttaagctta acaatttttt atctttaatc aatttttctc 540
cccatagatc tctgtggtaa gaagtgtctac ttttagagaca aaacctgaat caaaatatgt 600
atcactcatc acgtcatacc agccattttc cttagaaaag gaggtgggtc gtgaagagcc 660
gttgtctcca gcaacagttc caggcatgca taccgaagac aatccaggaa aagtggaca 720
tacagaagaa ctttcgagta taacagaagt ggtgactact gaagaaaata ttcctgacgt 780
gggtcccggc agccatctga ctccaataga gagagagagt tcttcacct taagtagtaa 840
ccagtctgaa cctggcagca tcgctttaa ctcgtatcac tccagaaatt gttctgagag 900
tgatcactcc agaatgggt ttgatactga ttccagctgt ctggaatcac atagctcctt 960
atctgactca gaatttccc caaataataa aggtgaaata aaaacagaag gacaagagct 1020
cataaccgta ataaaagccc ccacctcctt tgggtatgat aaaccacatg tgctagtggg 1080
tctacttgtg gatgatagcg gtaaagagtc cttgattggt tatagaccaa cagaagattc 1140
caaagaattt tcatgagatc agctaagttg caccaacttt gaagtctgat tttcctggac 1200
agttttctgc ttttaattca tgaatttct ttggaatctt ctgttgggtc ttag 1254

```

<210> 236

<211> 1117

<212> DNA

<213> Homo sapiens

<400> 236

```

cattaacag atgtatacct taaaactgtg gtggggcctt aggccagcat gtgaaggaca 60

```

```

caggctgtag aggtcacatg gaggtcatca gcaggctgtg agcctggcct ggatcagccc 120
agttctgaca gctcctccaa tggcctttcc atggaactca tcatgagaga gaggaagggg 180
acaaatagta cagctccaaa tgagatgaca taactgaaag gctaagatgg gcttatagaa 240
gactgggcat ctcaaagaaa ccaggacagg agctataatc aaggagatg ttggcagaag 300
accagaaggc cgtcaatgaa tggatgttat gttttaatag cctcgatagc agcacatcat 360
ctccagggtc ttaaaaatga tcacccttga gtcagtgggt tcttctccag gagaaatcct 420
gggtgtgttt caagtgaagt ctactgggtt ttatgagttt aatcccagtt atgtttcagc 480
tgactcagct ccgactgggt ttttctgtt tccatttccc ccagcctcat cctctgcctt 540
ttagggcctt cctctttcat tctctgcac cctattctc atcaccccca aacaggaaca 600
tgtacaagta ttaaataga atccaaagcc aatcatctc caaatgtgtg agaaatcaat 660
tgtccacaat ggcttgggg ggtgctttat tagggcatgt tttgattgca cgtggcctga 720
ccttaagctg gaagggaat atggctgtgc acctcatgat gacattttgt tcaaggatgg 780
accacatata tgacgctggt ccataagat gattatggag ccgaaaaatt cctatcgct 840
gctgggtgtc tgatgattct gacctgtct aggcctaggc taatgtgtgt gttttgtct 900
tcatttttaa tcaaaaagtt taaaagttaa aaaaatgctt aatagaaaaa tgtttataga 960
ataaggatat gaaaaagaa catattttta tacaactgta caatgtgttt taagctaagt 1020
gttcttaaca aaagaatcaa aaagttaaaa atattaaaag tttataagct ttatgaagct 1080
gcagaaaaaa agttacagtg aggttaactt attatcg 1117

```

&lt;210&gt; 237

&lt;211&gt; 1572

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 237

```

cactgttttg ggaaacttac atgttgagat ctacagagat ccaggaaacc aaagccctgc 60
tgagcagagc cttttgtgg ctatttctgg agggccagga gtgtggctgc aagagaaaaag 120
gggctggagg aagatccgga gggcaggggt gttccctctg ctgatgatgg atgcccctaa 180
cacctgtgcc taacaccctt actgaacccc acagctccag ccttagtttt tggagtcaag 240
tgttaaaggt ttctggccag aggaattggg gtcttgccat ccctgcaata gcccttttat 300
gggctctggg agacagcttt aggggaataaa tggggatttt ccccttttcc taccactcc 360
tttgettcct ccaagactta cccaactcct tccccctcag agaaccacaa agcctgagga 420
agcaggagag tctctggtta tggcagtttc ttggtgattt ggggcttcaa gacagtaggt 480
gagagatgct gtcaggacgt atcttcttca taccaaagtc actggtcctt tctcagcctc 540
tctcgtgctt ttctcctaata gaccatattt ttgccaaaaa ttgggatgatg ttatctgaca 600
gaccagaata tttgaagttt gggctgtcct gaaagtctgg actttgggtgg taccctctc 660
ccccagccca tctgttgac attatactcc gtgtgttctt caactttcgg cgcccttatt 720
ccctgcctt cctggcttga ttgaaggaaa gcttgaagg gtcagagacc ctatacctca 780
tttctccat gataaaagga tccaagttag gccctgtcac agcctgtggg taggggatgc 840
ggcgggatcc tcattgccat ggtactcaaa ggtagaagag cctggagttt gttgcttctc 900
tttgcatttc ttcatatcc tcttggccct ggtgattaat tagcaattct cattcctctc 960
agccaaaggc ctgcactggg ctttatttgt ctttttttat ttttaagca ctgcctgcca 1020
gagatgggccc tggggcctga tgaggacctt agcgtgtctc gttctccttt tctgttcatg 1080
cacacattcc tccatggggg ggggaaggca ggcaggggt gtggccctcg gagaagttag 1140
gagtcaccca gctcaagata cagtggcaaa gacctagtng tccccctacc ccacttctct 1200
cacttcctgg catgaggaga gaagaccctg ctctgggtgga gctgacaacc tttgaggtg 1260
ggaggagagc agcctctggg catcgttccc agtgtccctc acactaaaac ggcgtagatg 1320
gcaacccccc acccccaccc ggtgctcaac tcttgtgtt gttgttctgt ttgccccatt 1380
tatctgttgc tgtttttgtg ttgtcttccc ctgctccgca ttttgaataa tggccctg 1440
gggagtgttt ttgtggatc tgetcctctc cgtctctca ctccactact ttttgaaca 1500
aagtgatggc agaatgcggg ggtgggtggg gtcttttgta ctgttggatt aataaaatga 1560
ttttaaaatc cc 1572

```

&lt;210&gt; 238

&lt;211&gt; 1051

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 238

```

attcccagta actagcacag acctacaaa gactggctgc tcaataatct aaagaataag 60
tagagtgcag tgcaaggatg acatgcgcaa ggtgtatatg aataaataag gaatcact 120
tacatatcca agtcatcaga aaatgtttta ttatggacca tatctttaat agggcacaa 180
gttacataat acagcttcag tgatttttct tcaaaaatca taaaatcagt gtagagactt 240
gaaggcattt atctacagt actcaattct gcatagattg ttaagctttt agagtaatta 300

```

```

atgatcaacc acgccaagca gagtctgact gcagtgccct tcttcctgct gtttcattctg 360
cctgtgatcc tcttctccag acacctctgt tgcctgttcc ttcactttct ccagggtctct 420
actcaaagt ctttttatta gagaggcctt cctgaccac cttatagaaa ataaccacccc 480
accctctcca ttcctgttc cccttaccat gtttaatttt tttcccgtag cattcatcac 540
catctaccat ccatccatcc attcatcatt cattcattca tttgttcaact tcagtctctt 600
ttcactagac tgtgccttgt agataaataa ggattctgtt tttgttgagt actccatcct 660
tagcacctaa aacaatgtta aaacaactag atgatactaa aagcatattt tttgaatgca 720
tgaatgatca taatgaagaa aagcttacta ttttatcccc ttgcaactaa ggaataagga 780
aggggaaaaa aagtcattt tcaccttttg acctcttctt gcccttcacc aaaaactgag 840
ttccctgggtg ttttttctct catatgctga tgtggtgcaa atagcctagg cttgagggtg 900
aggggtgaagg tcgagttccc accctatgat tgtatgctcc attgcagctc ttgacagtct 960
attagaatac cataaccata gatacttctg cttctagggc tttctttgtg agcctaagat 1020
ttaactacca acacttatgt tgtcatgtgg c 1051

```

&lt;210&gt; 239

&lt;211&gt; 1952

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 239

```

cccagtatag aaaactgtga atgcaaaaca cctctgagtt gattggcaag gggactggag 60
gccccgggtca cctccttttc totttcaaaa tctccattct ttttttttt tctgcaaaat 120
ctccattctt atttgtgtctc cttgaaatac ttagatatca cctagtccaa gtgggttcca 180
ggcagcactt ccatcatctt atccaacttt gatattccat cagttatcac aactcaact 240
ttccaggata tatttttaaac tgactttcgt gtctctttgc tagcttgctc tcaagcagtt 300
gggatctggg aactccagat tctgatgata tgggaaaaag aaaacttggc acagagccag 360
gacacccaag ttctctacct ataactggg ggtctttctg ttgttggtgt ccccattta 420
tatagaaata atcacctctg gctctcctgt cttgtagagt tgtgaggatc acacgtgtta 480
agctctgtat gctgtctttt cccctttcca ggcacatggc aggttaactt ccctgccctt 540
ttggagttgg acttggccat gtgatttgc agccaatgat gcgctgtgg agatgatgtg 600
tgtcatttcc ggggggaagt tttaagaact cgtgcttgat tcactttgtt ctttctctc 660
ctggagcaac tgtagaggca catctcaaaa ctcacttcca gtcagcatgg gtttaagagt 720
ggtcagtatt agcagagatc ctggcataac caaaccatcc tggagagtaa tcaaaactaa 780
agctttgctg tggtagcct gagatattag ggttgtttgt tattacagca aaacctagcc 840
tactctgact agtctagtgt gtgtgaggg aattacattg acatccacat tattgattaa 900
acttctagag tttttgaagc atgcagagct tccaaaacct aggaaaatga ttatctgaag 960
actgcttttg aactggaaag ttcaaaacac atttaacaat tagcctaaca ttgtaaaacc 1020
ttttgtttgc agatttaaag ccaagaatgt tagtgaaaca tagtggtggc cagatattcg 1080
gcttttctct ccctcccaa atgctgaatc ttcaggagct taaagaatga ctgtgatttt 1140
tttttctaca gagattcaag ttatctaaac taatctctta ctaatcctct tattcttcca 1200
gcgagttcat gaaatcagtg aattaagcat tgcagagcat atacagttat gagaacagta 1260
tgttggggaa gggagctggg ttgcaaaaag atttcacctg tgctttactg acacagtagc 1320
cataatacaa aagcagtgct ttaagtagtg ttactgatag gaaataaatt taccctgacc 1380
ttataaagct tgaaggtgat gttttgtaga agttacaaag gtgaacatag cctggtacag 1440
gcagctctgc agtgagctg gttttttgac ctacaccaag ggatcctgca caactcatag 1500
cactttcttg gccccagggt ccccatctgt aaaataaggg ctcaagttcc tgacttactg 1560
cttcaagggt gaaatgagat gatgtataga agattactat aaaaacaaaa aaaggataat 1620
tttgtaatga gttggtatta gctgaagtct ctattcaatt tggttggaag tctgttactc 1680
agatgcttta agcagcaagt gtcaggaagc cctttccaat agtgtataat acatttaaaa 1740
ctgtctataa aaacatttaa tccaacaact cttcatggta aaaaccctca acagacaagt 1800
atcgaaggaa catatctagc aataataaga gccatctatg acaaaccac agccagtatc 1860
atactgaatg gtcaaaagct gaaactattc cctttgagaa ctggaacaag aaaaggatgt 1920
ccactctcac cactcctatc aaccttaga aa 1952

```

&lt;210&gt; 240

&lt;211&gt; 1228

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 240

```

atataatcac ttctttaaaa atgtaatagg gccaggcgcg gtggcttaca cctttaatcc 60
cagtgtttt ggtggcccag gcgggtggat tgcttgagcc cagagattcg agaccagtct 120
gggcaacata gcgaaacccc gtctctatag aaaatacaaa gattagcctg gcatgggtggc 180
atgcatctgt ggtcccagcc acttgggggg ctgaggtgag aggattgctt gaacctggaa 240

```



```

tgttgagtct gcagtgagtt gtaattgcac cactgcactc tagcctgggc gacagagcaa 300
gaccttgtct taaaaaaaaa aaaagtaata gaactacatt tctaagtatg aactattata 360
ttttgtaaat ttaatccctt taaagtttga attatgagct cctagctgca aatccttatt 420
gtggttagtt taattgatct tggtaattaa cgtttttgat atgtgggatt tttatcatta 480
atttaaaatg tttcttattt cagaataatt cttgagaaag atgaggaaca gcctagtgtg 540
atagattcctt gccatgttgt agaattaaaa caaacaaaaa cctctgtttt cttagatttt 600
gaaactacaa aagattcctc cctaattattg tgaatatgct atatctagct gttcctctag 660
ttcacttagg tcaaagtaaa atgttttaac ctactgttat atcatgtaac tcacttgcaa 720
catgactaac catctgggac actgtattaa tcggttctca cactgctaca aaggaatacc 780
cgagactggg taatttatga aggtttaatt gactcacagt tcagcatggc cacagaggct 840
tcaggaaact tacagtcatg gtggaagggt aagggaagc aaggcacctt caccaggcag 900
caggaaggag aagtgccaaag caaactgggg aagagcctcc tataaaacca ttagactctg 960
tgagaaacta ctatcacgag aacagcctgg aggaagtgtc cccatgattt cagttacctc 1020
cacgtggtct ctcccttgac acttggagat tatggaaatt ataatttaag atgagatttg 1080
agtggggaca gaaagcctaa ccatatcaga cacataattg tttcaatttt atttccaaat 1140
ctctaggaat aaagattttt aaccttcctt gatactcata ccaatgtttt gtgaccttaa 1200
gagtcagtaa tttttttttt taacagcc 1228

```

&lt;210&gt; 241

&lt;211&gt; 1791

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 241

```

caatagcaat aaataataaa aataataatt agtaaataaa aaagtaataa taaatagtaa 60
ataaataaaa tggaagagcc ttgcatatcc ctccacatat tctgtacac acatgctgga 120
gttttataga gtagattcca cgtggtggga tttgctgggt cagggggcat atgcatttta 180
cgcttttggc aggtatttcc aagctgccct tcaggcaggc cacaccaacc tacaggcctc 240
ccagcagggg gtccaagtac ttcttggggc tgctggcttt cgactttgtt gctgctgctg 300
ccaggtcact aacaggggtg atcagatggg gccacttgct cactgaggca gtcactcgag 360
gcatgtcctt gtcccagagc gctgactgag gtaagagagc cctcttcat gaaagttatg 420
ccacccttgc ctttggacct gttgggagcc tcagagtgca aaatgagaca tttcaagttt 480
tactaagagt gaagtgtcac ctccctcatag agaccttcca tgaggctccc ttgtccact 540
gtctttttct cagccttgca tgttctgcg cagcccaaac ccagccctg cttctgtgtc 600
ttccatcgag acgtacggga tttggggaca tgttctcagt tccatattct gctgtgagct 660
aggaagggtg ctggtattca cctgctcat tttctctcc ttgggcaaga caaagcagag 720
ctctcttagg aacagatgag tacagatttc aaggaagtat ctagaacctt gatattctg 780
ctgaaatcaa gagctgaata tagagaacat cttggcttat agattttttt ttaatcctgc 840
tctgtttgag tgttcagtgc catacctatt acagacaatt atgtgtggat attagtatac 900
cggcaggaaa ccagtgaact agcccactct tacctggagc gctatatatt nccctgtgg 960
catggttcat tgctaattat ggttgcctc agagttagta acaggaaatg acaacagtaa 1020
accatccatg gtgggggggt cgctgagtg tgagagaacg aaggagggat tgagaccagt 1080
ggatttcttg aggcctccc cacttctca agtgatttaa cttctctagg ttgcagttcc 1140
ttatctcaaa aaccgggatg atgacccac agcttccagg gtgttgagag gattggacat 1200
aacttgtggg tcctgttgcc attactcatg tgtgttgaca tgggaaacag caagagcaac 1260
atgctcttca aatacccaga gcagattcct ggagagacag tccatgaacc aaaggaagca 1320
gttttttttt aaccctttta ttttgtagt cagtaccag caggtggaaa atattaatca 1380
aggattacat ataaacaaaa aggaacttgt ttaatttag cttttttaa agagtagggc 1440
aaagtgtcac actcaccttc attctgttta aaaacagaga acataagaaa atcttctcct 1500
aaaattaaaa ttaatagtgg cttatgcggc cgggcgcggg ggctcacacc tgtaattcca 1560
gcactttggg atcatgagggt caggagatca agaccatcct ggctaacgag gtgaagcccc 1620
gtctctacta aaaatacaaa aattatctgg atgtgggtgg gcgcgcctgt agtcccggct 1680
attcgggagg ctgaggtggg agaattgctt gggccctgga ggtggagggt gcagtgagcc 1740
aggatcgtgc cactgcgctc cggcctgggc gacagagcga gactgtgtct c 1791

```

&lt;210&gt; 242

&lt;211&gt; 3196

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 242

```

attacagggt tacgcccagc taatttttgt atttttcatg aagatgggggt ttgctgtgtg 60
tggccaggct ggtatcaaac tctgacctc aagtgcctgc ctggcctcc caaagtgtg 120
ggattacagg cgtgagccac catgcccac cttttctccc tttcttaact catgagtaca 180

```

```

caaaggccag aatagtgaag tgacttttcc agggtcacac' agccttcacc tgcctcagct 240
cctgccccat gcccttttgc tcttttagggc tccatttttag tatgggaaaa atgtgtcag 300
gaaactttga aagtcacagc catctgttgg gacaacgttg gcacatagta tccctgcac 360
ccccaccac ctcctcttgc tttgtggagt tgtccattgt cctccttgtg catttgcgtg 420
gctgtagccc ctgtcctcca ggcacaaatc tagcttctgc aagttgcac cccacatcta 480
gccatgtctt cccctcctgt gccaccatta gaggatttca ctgaatcaca ctctcaggc 540
cagaatccta gcagaacttc cagtctcgcg ttagacactg tagatttcat actctccaaa 600
cccctgggtg ttcatttata tataaaataa gtgaaccgga taccaacctg agaggttttt 660
cttgctctca acgccattct taaatacaaa gagggtccatt ttattatttt atattattgt 720
cttttttttt tttaaacaaa tttctgttta aatagggagc aagctttacc ctgcatacag 780
atccagctgc aaagggagat ctgtgatttt ggcaaccagg ctgacctgcc ttctggaaat 840
ggaaacaaat cttcaggtgg cctgcagaag acattctcca aactgacac ccggttcacc 900
aagaaagctt catgtaccag ctccagcagc agcacaatt attccatcca aaataccct 960
tccaaaaaca tcttcatagc tggatgttcc gaagagaagg' ccaaaatgcc tggcaatatt 1020
gatacaaggc tacaaagcat tttgaacatt ggtaatttcc ccaggactac agacccttca 1080
cagtcagctc agaattccag taatacagtg gccaatggct ttctcatgga gaggcgtgag 1140
aacttcctgc atggagatga cggcaaggat gagaagggta tgaacttacc aactgatcag 1200
gaaatgcaag aggtgataga ttttctctcg ggctttaaca tgggcccagtc acatcagggc 1260
tctccgttgg tgacaaggca taattctgct gccacagcca tggtgactga gcagaaggca 1320
ggagccatgc aaccacagca gccgtcactg cctgtgcccc ctccaccagc ggcaccccag 1380
gctggggcac acacacctct gacaccccag ccgggactgg cacctcagca gcagtccca 1440
aagcagcaac aacctcaagt ccaatactac caacacctac tccagcccat tggaccgcaa 1500
cagccccgc cccagcctcg ggcacctggg aaatgggtac atggctcacc ccagcagcca 1560
gcgcaggctg tggagcaag tctgtctcct cttggctcagt ggcctggcat atctgatctc 1620
agttctgact tgtacagctt gggctctgtg aacagctata tggataatgt gatgtcagaa 1680
gttctgggac agaagccgca gggacctaga aataacacct gggccaaccg tgaccaagat 1740
gatggagtct tttggaatgc tgggagagat tctgcctttt gatcctgcag gtatgtgagg 1800
cttccatccc tcggcccagt gtcaacagca aatgcaactg ccgaggtctt cccagggctg 1860
tctgtcgag ccttacttgt gaaggtgaaa tcatttaatc cccctttacc acgctttctc 1920
actgtgaagg caagtatggg gcagatctac caagatggga aacagtgttg agaaaggggc 1980
tgagaacatg agtggactat ttttcttact ttatagagaa cagaactgag gctaagagag 2040
gttacttgaa cagctcaaag tcccatagtt caagtaggct ccagtctagg cctgcctact 2100
cccggcagcc aaggtcagca gcccttctgt ggggtgctttt ttcttgatta tataacctgt 2160
tctttgcgat gctttttttt tttgcctaaa ctctaggacc tatgacaggt gacagacacc 2220
ctcctgcctt catagaatac agcttctcct gggctagaca atgaaaatac caccagagtc 2280
atcttaaaaa attagagaag gaatttacia acaagaacaa actaggagga ggaattaaag 2340
gggaaaaagc aaaaataagt aaattagaaa gaaaaataga gtagaaattg caaataaactc 2400
taaaggatct ttggaagacc aataaaatgt ataagccaat ttattctaaag cttgattaag 2460
ggagaacaaa gagaaacaaa attaggaat agaaaggata cattaaaagc gctttagtgg 2520
ctcatgcctg taatccagc actttgagag cctgaggctg gaggatcact tgaggccagg 2580
agttcgagac cagcctggtc aacatcacia aacctcacc tctgctagaa attaaacaaa 2640
attagctggg tgtggtggtg cttgggaggc tgaggcggtg ggatcccttg accccaggat 2700
tttgaggctg cagtgaagctg tgatcgtgcc actgcacccc agcctggctg acagagagag 2760
acctgtctc aaaaaaaagc cactttaaga caataccatc taagacttaa tagcaataca 2820
tttgaaatt cagcagaaaa tggattcttt cctagcaaaa tagtcattac aaattatacc 2880
aagaagtgga aaacctgtcc aggcagatg tctcatgct gtaattccta gcactgtgga 2940
cgnagnaggta gncggattgc ctgaggccag gagtccaaga ccagtttgcc caacatagtg 3000
aaaccccat ctctacaaaa aataaaaaat tagctgggtg tgggtggcaca tgcctgtagt 3060
cccagctcct tgggagggtg aggtgggaag atcgcttggg ctcaggaggt tgaggctgca 3120
gtgagccatg atcacaccac agcagcccag cctgggcaac aaagtaagac tctgtctcta 3180
aaaaataagt aaatac 3196

```

&lt;210&gt; 243

&lt;211&gt; 1413

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 243

```

ccctgcctcg ctcccttctcc ttctccgctg tttcccttc ccagactag gctaagagaa 60
agcagcagtt ccctccagca cccaagatag catatgaatc aaacagagaa ttagaaagtt 120
tattggaata aatatctcac agatttgttg ctgagttcc ccactaagac actgattatt 180
tagtttctcg cttggggaag tgttcacacc ccttgttgg taacattgtcc agcccagagt 240
ttgtcctccc tggatatgtt ttgaattaat gacggccgca cctcctttcc tgtatttatt 300
tggaattgcc tgggtggaag aggactctgc tgcactcact gactgtgtga tctttggtaa 360

```

```

atatcttacc ctctctgggc ttagtttccc tagtggtaaa gtggaaatag tgataactat 420
cttagatagc tgtgtgatg cccacatgag atagcatctg gctttaccct tccctcgtct 480
ggcaataacg gttaccttgc aggattggca gaagccttag agtatggtgc tttgcagatg 540
ttcacogtgt gattaatgtg gttgagttcc atgagagaaa tggctctactg tctcccttcc 600
aggctgcctt tctccgagct gtgcgtaggt ttcggggaaa agctgtgtgg gaaaggctct 660
ccatgggctg tgggtctgca gtgggcagga ggatcctaag aggtgggtng gcagcagttc 720
acccatctcg aaggagaaac taccaaacgc agagactgag aaattctgga tgttttaccg 780
ttttgatgnc catcagaacc ttcgggttcc tgtcacgact gaagttggca cagactgcc 840
tgacagtggg agctttgccca ccaggctatt acttgtactc ccaggcctcc tcaactctca 900
caccgtgtgc ctcatgagtg ggatateggg ctttgccctg accatgctgt gctggatgag 960
ctatttctta cggagactgg ttggtatcct gtatctgaat gagtctggca ccatgctgcg 1020
gggtggccat ctgaacttct ggggctggcg gcaggacaca tactgtccca tggcagatgt 1080
gattccctcg acagaaacca aggaccggcc tcaggagatg ttgtgtcgta tccagcggta 1140
cagtgggaaa cagaccttct acgtcaccct gcgctatgga cgcctcctgg acagagagcg 1200
tttcacacag gtgtttgggg tacatcagat gctcaagtga acaactggga cctggacctc 1260
tgggtaaccc tgggtcgcct ggattaacag gaagctgag ggtgtgggca aggctgaaga 1320
aaggggactg ggtacttgga gactttgcct gggcccctgg gaacatgtgt tttgtggtga 1380
ataaattcac aaggcaagag ctggtgtaca ggt 1413

```

&lt;210&gt; 244

&lt;211&gt; 1183

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 244

```

cagtattga ttctgcttgt gtattgacta tttgagaaca ctgtctctgt gaggcctggc 60
tgactcttgg atgtctttta aactgattct aggcagagag gttttctgac cagagctgtg 120
aatttatggg aacaactcta caaaaataag tgaattttta tttttaaaac tgttgcttat 180
ccaagatgtg agttctgcac tatttatata ctttaaaaat gtttttgttg aactatcagt 240
tttcattttt tctgtttttg ttcagtgtag agcattttta agcaaataaa agtgagtaca 300
aatagttaag ctcactgcaa gtatgcacaa tatttactat atcatatata catgacacat 360
catcgttatt accaaagcat tacagtaaaa catgttttgt atttattgta attttatcag 420
gtgtgaaaag aacaaacata aaaagggtaa atctctatct gcattccccc agcatctgtg 480
accatgagca gctagttcaa tctcgttctg atggatagag agcagaccca aaggattagc 540
tgggttgggt agtcttttga acttgttcct taagaagatt tttctcccct acctgaaga 600
atagataaca gcactaggca actgagaggt cctctgctga tcaagtacat ccttcttccc 660
agctattgct tatgtcaaaa caaaccaatg gtgataatat tttcctcctc tggtccttga 720
ctcaggggat gatattttat acacaaattc actgaagcac catattctta tagtgtcatt 780
ttaatctacc tgaccaaaat ctgttttgag acaatataac accaagtcag ggttaggcag 840
gctaagtttt agtctttatg ctaatttgtt aaatgacctt ggggtcaattt attgccataa 900
tggaataatca agcaattcta taacttttag ctgcctcctt ttttttttcc ttttttagct 960
tttttcttac attttttaaa acatttttaag cctcatgaaa ttgcctttat tattttcatt 1020
tgtaaggtta aaagtttaaa aataggctat aggtcccagc taactgggac gctgaggcag 1080
aaggatcact tgaggccagg agttcaaggc tgcagtgagc tgtgatcaca cctgtgaata 1140
gcccctgcct tccagcctgg gcaacatggg tagaccctat ttc 1183

```

&lt;210&gt; 245

&lt;211&gt; 2017

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 245

```

ttttaaatgg tgattttcag gttcctccgt ttcttctagc acactttgta gattctttagc 60
aaacttctaa aaatgatttc ttctcagtag acgttggact ttgttgcttg atctcccata 120
ttttcctatt ttccatttct gtatcttttt tgtatgggtt ttaaagatat tttattattt 180
acttttgaat gatttgtttt tattccaact ttatattttc attttctatg aatacttttt 240
ttcacttaat atttctttca tattattcta ttcttgatc atgtggagta gcttctcata 300
tccttatgag aatatacgtt gtgacttttg aggttttctt tgttctccta tatagtctgt 360
cttctgagtt gctttggttg ctttgtttac tgtcttttat cttacaggct tttctcaaat 420
atcataatatt tgcctatttt ttgtttctgt tgtttttgta tatatttaag atatacaaca 480
tgaggttttg atacatatta tgaaatgggt actgtagtca agcaaattaa catgttcata 540
atctcacata gttacacttt ttgtgtgtgt gtggcaagag cacctaaaaa tctactctca 600
tcaaaaatct caaatacaat acaatgtcat taactatagt cctcatgttg tacattggat 660
ctctagactt attcattcta catgtctgaa actttgtatc ctttgacctg catctcccca 720

```

```

ttttctccct gacagtcctt ggttaactacc attctgtatg ctattttctgt acctttttttt 780
ttttttttaca ttctacatat aagtgcagatc atgcagtatg tctcttcgtc tcccttattt 840
cacgaagcat aacgtccctc agtttcatgt ctgttttgtc aaatggcagg atctcttctt 900
ttcaatgggtg aataatatte atttatatat atcacaattt cttcatctgt tcatccatca 960
gtgggcacat aggttatttt catgtcttgg ctattgtgaa taatactgct ttgaacatgt 1020
gagtgcacat atcttcattg aggtagtgat ctatttgtaa ttttagagtgg gccctaagaa 1080
gctgtatgct atatatattg tatgttgatt gtttagacttt tatgggtact tagttccctc 1140
cacttcttaa gtttttctgg ggttctgcag caataaacgt acacttttta tacacaaaag 1200
tgtaactatg tgtggcttct cttactttta gttaagatta tatctttttt gattgggtcat 1260
tgttatctac actctcaact taaaatggtg gctgggcatg gtgctcatgc ctgttatccc 1320
agcacttttg gaggccaagg caggtgatca cttgaggta ggagttogag accagcctgg 1380
ccaatatggt gaaacccac ctctactgaa aatacaagaa tccggccagg gtgggtggc 1440
atgcctgttg tccgggtac tggggaggct gaggcagggg aatcacttga gcccgagg 1500
cggagggtgc agcgatctga gatcatgcca ttgcactcca gcttaggcaa caagagcgaa 1560
actccatctc aaaataaata aataaataag ctgaaaatgt tttgttgctg cagcttccctc 1620
tttaatttcc ttttatgtgg tggttttgtt ctgttttaca aattcctttt cattcctttt 1680
agtgaaggtt tggaaagcgt acgggataaa tgcacgtgat ccacttgagc tttttcagag 1740
aaattatggt gtatggctag agaaatctag ttttttagatg tttatttga aggataatac 1800
attttgcaaa taatttatta tattattcaa ttaataagata ttatctttgt cttcatgaag 1860
cagagttcaa gtgattaaa ttaataagata ttatctttgt cttcatgaag cttgggtcta 1920
ttgtagcaga cagaggttaa acaagattc aaacaaatat gaaaaattta actgtaggga 1980
atggatacgt aaattaccta ttatcaaac aaaaacac 2017

```

&lt;210&gt; 246

&lt;211&gt; 1441

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 246

```

ctctgtctcc cagagtgtg taattacagg catgagccac cagcctggc tattttactt 60
aattttaatt agacaacatg tgacaacctt attggacagt gcaggactgg agtacaagtt 120
ccaagtgtca tgccctgctt ttcacagagc tgagcacata gtaggtactc aataaatatg 180
atggaatgaa taaatacaaa gaagcactat aaaacagaag caaggatgat gtcctattca 240
aatccatata ctcccttcag gagaattttg gcacctgctt aaagaaggag gcagaggatg 300
gggatttctt ataaacattt aggatattcc cagattttta actgaagctc tcagcacctg 360
cagggtgggt caaatcaagg caaagggaac caatgaaact ggggtgatgg caaggccagg 420
gtctgtctcg tggccctgct cttcttggct tctgtttctg ggtcttccaa tgcctatgct 480
tttttgaaac atgttaaggg taatcatcaa aatgaaaaac attctgcagg aatggggaaa 540
agaaaaacatt tgttagaatg gctgaagaga tatggggaga ttgtgcgtaa tttggaatga 600
ggggctcaga acccaagacc cggccctgct tgccatggct ctgtaacctt gattaagtta 660
cttatactct ccaaaacacc ggtgcctaga aaatgagagt aagaatcata atacctcatt 720
taccgagttg ttgggaggaa caaatatagg aaaatcgtgt tttataatcc ataaagtata 780
gtcagatatg tatatggtac acacaagctg gagtgatatc cgaacgtact cctaaagcac 840
agctatataa aatataattc ttatatgtgc ctttcagaaa aagaaaaata acttatcaaa 900
ttctatctgc atccaaacag aacctaaca atccaaatca gactttatct ctttaattt 960
aaaaaccctc tgagaaagct gatgccacag cctttttcta gtacctgtt atgattcagt 1020
atgcgtgctg ccaggatggt ccttgtgtct ttccatccca tctctgccct ttttagatgca 1080
gtagtgaact ctctacccca cccaacgtg cccaagacca cctccccact tgccactgta 1140
gcctctncac tctcttctct catcttccct gctctatatt ttaccacctg cctcaggccc 1200
actgttttag actcttttct ctatgagctg acctccctga acttacaat tctcctgcag 1260
cacttgtcac ctttccctaa gaaatatctt tttggccagg cacagtggct cacacctgta 1320
atcccaacac tttgggaggc tgaggtggga ggattgcttg agcctgtgag gtaaaaggctg 1380
cagtgcagc tgggtctccc actacactcc agcctgggag acagaataag acctgtctc 1440
c 1441

```

&lt;210&gt; 247

&lt;211&gt; 537

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 247

```

ctcgggcggg tctacagag acagttacga cagttacggg tgaagggggc cggccaggac 60
tcgggggaagg gtggcctgag agcagcagtg acctctgggg tcaactgtccc aggagggact 120
tcacctggaa caagagctgg aggcagccgc ttgcccagga ggcttgtccc ctgtaagtgc 180

```

```

tttcgggaag agtggcatgt ggcgctgagc cctgtcccgg gcggcacctg ggcgtttcag 240
tgagtcctgc tctcccgac ctatggcccc acggcgggcg cctttcggtg tgtgttgggt 300
gcagggcagc gcctcccggt agcgccgggt ccctcgcttg gagcccggc ctgttctccc 360
tccttctctc ctcttccag gagcgcttc gccagttagg tgcgggctca gggcctcgag 420
tctctcctgg agcacgggt gcggtgcgcc ggcagcttac ggggcggcca gtccttgccc 480
acaacgatgt ggagccctgt gaaagtcgga ttcgaataaa gggccacgtg tgcacccc 537

```

&lt;210&gt; 248

&lt;211&gt; 1686

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 248

```

cagtttccgt ctgaggcagc gatggcaagg ggtcaagatg gacagcagcc agtggtagac 60
ttgtggattt aaatgtacag gtgacagctt ctaactcaga tttccatttg acaaggctca 120
taattctata cattgggctg ccagagtcta cagactgctt ccgtatatgg gatctcatte 180
atthttccatg ccaaccctgt aagggttgggc tgaacagccc cattttatgc ctgaggaatc 240
tgagggtttg gggattaagt agtgacgtgt ccacaggcct ttaggtttcg tggggcagat 300
ccggaacttg aaaggaattt gctatctcag tttgtaact cctcagatgc tgccactcag 360
aagggtgttg gtatcactga tgcattgtgac ttcattgagg agagtggaga catggcacag 420
agggagggag ggagatgcgg gtggaagagt agaggccctg gcgttgca ca taccaggac 480
gctattcgca gtgtgctgac ccttctggc tgcaggcccc tccaccagct gagccctcgt 540
gtgtcatttc agggagctac tttgcccag atgtgcata tccaccacac tacagcaaat 600
ccgacacgca gaccacacag atgttcctgg cccgggtgct ggtgggcgag ttcgtcaggg 660
gcaatgcctc ctttgtccgt ccgcccggca agggggctg gagcaacgcc tttctatgata 720
gctgcgtgaa cagtgtgtcc gaccctcca tctttgtgat ctttgagaaa caccaggtct 780
accagagta tgcattccag tacaccacct cctccaagcc ctcggtcaca ccctccatcc 840
tgctggcctt gggctccctg ttcagcagcc gacagtgagc gcacaggagt gttccaggcc 900
tttccactgc tctgccttga aatggctatt tgggcctttc cttttctttt taaacagaaa 960
cttttaataa actgttctct taacattgac ctctcaatga agttatgttc ttaatctctt 1020
gctaataatg atthttactt ttaagtcaact tttgggttca ctagtggatt aaccagaagt 1080
gatttgatgt gagtccagtt ttgcttttta ataagtgttt gaagttttag tttttactct 1140
ttgttgactt tctgcttat tggcacagg gacagagttt ctatatacaa ttttatggat 1200
tggttttaat ttttatgagt ttgtctctgc agtgattcgg tttctcagag tctcatggca 1260
tcatagtttt tccagaatga cacagtagcc accggtggat gacagcccac gggcggcaca 1320
gtcacttctg cctgttgctc tgacaccaac ccaggnagct ctgctgtggc ttctcctggg 1380
ctctggcatt agttgggtctg tgtcacattg tcagaacagg tggctgctgt gtgggtgccat 1440
cgagtccctg ctgggtcccc ttgtcctggg agggtcaccc attgcccagg gaagtgcac 1500
cacctggcag gtgacctgga ggagtagctt ccccgaggac cccaggttgg ggcctgtgat 1560
tgcgcaaac caatttctt aagcacactg gacacccttc gagtgtgggt ttttaacatcc 1620
ctgtgagatt gaatacttgt gccacacatg tcacaaaaga gtatggaaat aaaagaaaat 1680
ttatcc 1686

```

&lt;210&gt; 249

&lt;211&gt; 1047

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 249

```

tgacctttat ggcgcatgca gggggcaacc tgcataatta tcaatggcga ctttccgtgt 60
ccttctgata cagttgatca gaccctgcc caccgccag gccaggcctg tggatcatca 120
tgccccagtt cacatccacc tgccttctct ccaggctttg ctgttcccc gcagcctgca 180
gaggccccac agacagcttg agggccctcc tgcgtgctgg ccaagcccc caccgcaga 240
ccctccttcc catcctctga aatgggacct tgtgtctgtc accagccac cctctgtgtt 300
catgaacctg ggcgtggagt tggggacccc tccctgcccc tggcttctc tccatgttc 360
tgccctttcc cacatgttgg aggcctttcc aacgtcttca gggacaggcg gtaggaaccc 420
cgccctcgc tctgcagctg gtgcaaagct gtggctgcca ggctggcca catggcagcc 480
cagggggcag gagaagcccc ggagaggccc gctggctacc agactcagcc ctgagcaggg 540
aacagggcc agcttccacc ggcaggaggt tgtgagcgcc tcccaacaa tgtgcccctc 600
accccttgat gccatgcta atggtagcca cctgggtct tgttgacttg agggacctgg 660
ctgtcttccc tgttcttcat ccttcttct cagtccctac ctactgtttg taaccacaag 720
tgtctctgtg tgtgggtggg tgagggcccc tctgcccagt ggtgtgtctc ctctccctcc 780
ctccctcttc tgccagtggc ctgggggtgt ccaggctccc atccatggcc cagccctct 840
ccctctgtc ttgatcccc cctccctgcc cctggcttcc tcttccatgt tctgcccctt 900

```

```

cccacacctt tgttcctcaa tagctggggg ctgggactga ggccctcctgc aggtacctgc 960
cccccttcac acagcacctc tcaatctcct attgcttggtc agcctgtgtg cgtgtggtgc 1020
aggaaataaa ggatctatac cctcctg 1047

```

<210> 250  
 <211> 1088  
 <212> DNA  
 <213> Homo sapiens

```

<400> 250
ttagaattag aaatggcaaa ggaactaaag aagcctaatt aagacatgtg cttagcagac 60
caaaagcctt tgccagagtt gcctcgtatt ccaggacttg ttctctctgg aagtacattt 120
tcagactgtc tcatgggtgt gcagttctta cgaaactttg gtaaagtttt gggctttgat 180
gtgaatattg atgttccaaa cctgagtgtt cttcaagagg gattgctaaa tataggggac 240
agcatgggtg aagtacaaga cttgtctgtg aggtcctctc cagctgctgt atgtgatcca 300
ggctctaata caggatacaa ggctaaaaca gctcttgagg aacatttgct gaatgttggt 360
gtgaatcgag acaatgtttc cgagatttta cagatattta tgggaagccca ctgtggacaa 420
actgagctta ctgaaagtct gaagaccaa gcttttcagg ctcaactcc agcacagaaa 480
gcttcagtc tggttttctc gatcaatgaa ctggcatgca gcaagagtgt ggtcagtcaa 540
atcgacaaga acattgatta tatgtcaaac ttgaggagag ataaatgggt ggtagaaggt 600
aaactccgca agctcagaat cattcatgct aagaaaacag gcaaaagaga cacttcaggt 660
ggcattgatc tgggagaaga gcagcatccc ttgggcacac ccactccagg aagcaagcga 720
agaagggaag gaggagacag tgattatgac gatgatgatg acgatgacag tgatgacca 780
ggggatgaag atgatgagga tgaagaagat aaagaagaca aaaaaggaaa aaagactgat 840
atctgtgaag atgaggatga aggtgaccaa gcagcaagtg ttgaagagct ggaaaaacag 900
attgaaaaac tgagtaaaaca acagagtcag tacagaagga agctctttga tgcgtctcac 960
tcattgcgtt cagtgtatgt tggccaagat cgttacagac gccgggtactg gattcttccc 1020
caatgtgggg ggatttttgt agaaggcatg gagagtgtgt aaggactaga agaaattgca 1080
aaaaaaag 1088

```

<210> 251  
 <211> 1450  
 <212> DNA  
 <213> Homo sapiens

```

<400> 251
cgagtagctg ggattacagg tgctcaccac caagcccggc taatttttgt gtttttggtg 60
gagacagggg ttcacatgt tgccagggcc ggtctcgagc tcctgacctc ggggtgatctg 120
ccgccttgg cctccacag tgctgggatt acaggcatga gctaccgcac ccagcctgag 180
accacctttt gcatctcaag attgtgaaac caaggcccat tccaccagcc tggggactct 240
ttttatagat atgatcctcc tttttcctgt gactaatgaa tttgtgcat gatttctatt 300
cttctgaggt tagttttctg agtaagggtg ccactcaca aggcactttc tttgtggcat 360
tctgagccta gattggggcc catcaattcc agaaaaatt tatgtgtgga aactctgcat 420
ccttaagtct tgaagttgaa ccagatatgc agtggttacc atcacacaga taaacgctgc 480
cttctgtaca tacccttatt gctgtactaa ttaacaaacc ccttgccagg gctggggagg 540
tgagggtgaa ggagaatctt agcagaaggg cagagtcagg acttgcactc gccactgctg 600
ggcactgaag ccctggagca gcttcagata gtacctgtac tttctcatgc agactccctc 660
tgaacaagag ccttgtaggc ccctctcctt catttccac cagcctctta tcaggcgggc 720
tttccaccat acaccagga ggccacggtc tgaggaacaa tcaaaccat gcaaagggcc 780
gggcgcgatg gctcacgcct gtgatgccag cactttggga ggctggggca ggcagatcac 840
ctgaggttgg gagttcgaga cctgcctgac caacatggag aaacccccat ctctgctaaa 900
aatacaaaat tagccggggc tgatggcaca tgctgtagt cccagctact caggaggctg 960
aggcaggaga atcgcttgaa cccgggaggc ggaggttgcg gtgagccgag atggcaccac 1020
tgcactcag cctcggaac aagagcgaaa ctctgtctaa aacaaaaaca aacaaacaaa 1080
caaaaaaacc caggcaaagt ttccttgtag ccaaggtgac agaactgggc tgagggtgga 1140
aaagaaacag aaccagtgtt ccagggtgtt tttaattttt taattttatt ttattttttt 1200
tgtatatgta tatatatgta tgtatatatt agaggaccag ggtctcacta tgttgccctag 1260
gccagactca aactcctgtg ctcaagcaat cctgcctcag cctcccaagt agctgggatt 1320
acaggcatgc acaacaatg cccagctctc caaatgtttt ctgtcactac ctgaagtgtt 1380
gcacgcgtac ttcctacgga gagaaaacta aatagaagtg tctctccctg gagcccccac 1440
cactaccacc 1450

```

<210> 252  
 <211> 2477

<212> DNA  
<213> Homo sapiens

<400> 252

```

ctaataatgat acccttgaac catcacaaga tatactgaag tgtctgtgcc atgatgtgtc 60
tacatactac ttaccatttg ttttaggaat tatttggtat aaagaagaga acctacatga 120
ataagctaaa aagaataggt gttattagaa ggcttcgcgg gtattcatga aatccatata 180
tactgagctt tgcctcacag aaatggggaa atgggtaact actcgttccct ctctcttattc 240
ccatcatccc tcctctctgc tgctcgttgt ttctatgggt tattctcctc tctctaaagg 300
tgagtttctc tgtgtacata ccggtttata catggctcat catggctgct ttcaaatggg 360
ggccttagcc tgc aaatcta tatgaccttt cagctcacat tccttatgct aaagaaatgc 420
agattctgct tttcctgttt aggactcctg ggagaaagaa tctgctgcag caccatgtc 480
tactcctcat ctaagcagtg ttatggggaa acaaggggga gaggagaggt catgtgtgct 540
gggctgctgc tttcagaaca ctgggcttgt ttcttaagaa caggattaag ggcagagggg 600
tttgatatctc tagtatcagt tgtagtaagg actacatggg gaggaaaaaa tggacttgac 660
tatgtacaag gatgaatttt aagttgctac acttaagaga gaaaaacaaa actctcatgt 720
agaaaactgt gtactggaca tatttagata gcgatacttc tacagagcac cagggaagca 780
gaagtaccta atctgagatc tgaagacaag aatcttcatt ctttctgggc tgaattaca 840
aactgtttct tggagcttg tatttctggt cccaaacaca aatccatttg atggaatcca 900
gagaaaagaa aaaggtgaat tcagccaaat attcttccac tcctatctgc tctagaagac 960
actgaagaag cactttctcc actgtaatgc atgcgatttt catgtgtaga catggtcacc 1020
accagctatt gttggctttg tgattatcac tccaaaatat tgaaggccac tgaatattcg 1080
gttaactata tagctatttc tatcaggctg ttttagatca taatagagac ttctaataat 1140
gctgagtaga tttctctgat ttgctgagaa aagttatatt ataataata attggggaaa 1200
gacctatttg agggcacctt ctctcagtac ctggggcccc cttcttctcc tctgggggc 1260
accattatgg tctgctcgtt cataaccctc tcaactcagt caatcgctat ttcgccagac 1320
ttcagatgta ctaaggcagt caattcactc tcatgagatg aaagcatctg tatttgaaca 1380
ggctgagata ccaagtttct ttctttcatt taaagttcc aagcagaatt attatgccc 1440
tcacaggatg accagtatgg cctattaggt aagaaatatg atcccatttc taatatecta 1500
tttgcatatt ttcttttcca aaagtgctt tttgcacagg tcgctggccc ctgaagtatg 1560
tgtctcaggg cttataaggg gctgatttcc ctctaaaagt gcttcaccct ccagttggag 1620
tcaggcatgg ctataggagc ttgaaggctg tgttctagtt ctgctgaaaa gacagtacta 1680
gcaaaaaaca cctttgtgtt ttccccatct tctgaaaact atttaaaagc attatatatt 1740
gtccctactg cttcagtcct tggctctctc aagggaacta accttggggg gatgctgaaa 1800
gattgcccatt ttcattgcaga ctatcaaatt gctccactag gtaaaatata aaaatgtaat 1860
gaacccaagc ttgactgtaa tcatacagca acaaaatcac ttgaaagagc cactggcttc 1920
cattttcttt tcctttgaag gcttggtatt ctgagtcctt ttccattca gggccatgta 1980
aacaacaaca aaaataactc ctttttaaag taagcattga ccagacactg ttctaaatgc 2040
ttaacctgga ttattcattt aattcttaaa accaggtttt tttgaggtag tattttcacc 2100
taattttata gatgaagaaa ctgacattca gagagggtta gtaacttgcc tagagtcaca 2160
gatcatgaaa tgtgaataaa gagcatggcc aaatgccaga cacagtggct cacacctgta 2220
atcccagcac tctgggagggc aggcagcttg cttgagccca gaagtctggg accagcctgg 2280
gcaacatggc aaaacctctt ctttcaaaaa aatacaaaaa attagccagg catgggtggt 2340
ggttcctgca gtcttagtta cctggagggc tgaggtagga ggatcatctg agccctggag 2400
gtcaagactc tggtagcag tgattggtga ttgcaccact gcactacaac ctgggagaca 2460
gagtgaagac ctgtctc 2477

```

<210> 253  
<211> 1120  
<212> DNA  
<213> Homo sapiens

<400> 253

```

tgggtgatcag ctgggtgcag tggctcacgc ctgtaatgcc agcacttttg gagactgagg 60
tgggcagatc acttgaggcc aggagttcga gaccagcctg ggcaacatgg caaaaccag 120
cctctactaa aaatacaaaa agtagccggg tgtgttagtg catgcctgta atcccagctc 180
ctcaggaggc tgaggcacga gaattgcttg aaccaggag gtggagattg cagtgaagctg 240
agatcgacc actacacttc agtagtcagg gcaacagact gagactctgt ctccaaaaaa 300
aaaaaaaaaa agagtgggtg tgatccatca gtgattttct aagatatgcc gggatttaaa 360
ttctgtagtt cactgaggtt tctttattta atcaacttct ctattgggaa gtttgtgtgt 420
ttagccattc ttctgccaca ttccccctt cttagctgtt gtccctcca agatcatctg 480
gattttccag gcaaggagtc aaggtattca gggctcatgt ggttgccatc atattctctg 540
agtgttgctg ggtctccctt tggtcacctt cccaacacgt acatgcacac acctagaacg 600
ttctctctct tgcctattcc ccatccctcc gtaaatggg actcttttaa accttctcc 660

```

```

atcaggggaag cccttgccac tgtggagtct ctaggacgcc aggccttccc aaacacaccc 720
accacgtggg cctttaccct ccacctctcc tgactctgtg ccaggtctct gctcttctct 780
tcacaccttg ctcttcctgg gctctagaat tattggaatt ccggaattaa gatggttaatt 840
ggctgggtgc agtgggtgat acctataatt ccagcacttt gggaagccaa gggaggattg 900
cttgagtcca ggagttcaag accagcctgg gcaacatagg gagacaccct ctctacaaaa 960
aatgttaaaa tattatccag gtgtgggtgt ggggtgcctgt aatcctagct actgaggagg 1020
cttaggtggg agaattgctt gagcccagga ggtggagggt gcagttagcc aagattgcac 1080
cactgcactc cagcgtggac aacagagtga gaccctgtcc 1120

```

&lt;210&gt; 254

&lt;211&gt; 1736

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 254

```

cgttatgggt gttctctgcc aacaccctac cacactgaca gctctcccta tagtccctgcc 60
tacttatctc ctcccccaagt gtccagctgg tgaaggacta tctcctggga caatttccct 120
gcagagaagg ggtacctgtt ttgccagca tccctgccag ccaacatttc aggttggtaa 180
aatggactcc aaagtacctg ctattgagga gaagttctcc taggtgacaa gcatttgctg 240
aagccatggg atacttagaa gctgtcgtca ccctcctcct gaccccggtc ctaatgaagt 300
ccctggaatt aatatcttct catttcctgg ccagcttgcc aatgttcctg tctcccacc 360
tgccatgaag actggatgtg gcaggagggt cctacctgac ctcacatcaatt tgtactttct 420
gccagcactg cccaccccc ggaccctgag gagacagcct actctagcct gaataggggc 480
aacagtacct ccaatttgac tcacatcatg actcacctgg gcattagtga gggcctgagc 540
ctggacttgg gtccaggtca tgatgcccc ggactttgtt cacctctcag ccacccatcc 600
ctgcagtnct ccctaagcaa tcccgatctc cagacttccc tgagcagtc tccagctccat 660
cttcagggna tccacagtct ccctcactat ctctcctctt cttggccac catgccctgc 720
ctactacctt cctgggccag ccctcactaa gtacctgcc cccacttct cctcctctc 780
cccctcttcc tccccctctt cctcttctct ctctactcc tctctctgtc ctccacttta 840
ttcttcatct gccctacct tactcaacct ctactcctgg ggccctccac caccactgcc 900
ttgtaccctt cagcccttaa gtttgcac aggtccagcc gatgccagaa gggtcgcaac 960
agcagctacc ccaaacagtt tttgccagt tcacccacc ctgtcttcca tccgttcagg 1020
gtgtccccct ggagaccagt aatctgcaca ccagccaca caccocaaag tctctacagc 1080
agccagagct gcctcctca cgcctgctc agcgcagccc tcaggtgggt agccctgag 1140
ccaggccaat tggattatgg aatactcccc gctcggccc actgggcttg ggcaagtctt 1200
cactggccga tgagtgaact cagcctgggg aactggagca gttcagcatg gagagccat 1260
aaatcagcct ggtgatgggt cccctggct tttctgaagg gcctggattt ttagaagggt 1320
agggaccagt ggctggccct caggattccc acacctnaa ccnccagaac ttgaccacc 1380
actgctcctg ctgtggctca aggntgaana tnatccnca agganactcc tcccagggt 1440
tctctaagga gattgcagca accctggctg gagtgcctgg ctttgagggt tcagtagcag 1500
ggttggaagt tggggctagg gctagaaaat nactgcgcag ggagctattg ggcctggaag 1560
ggctatacat gctgagagac ccagtgccct gctaccgat cctgctctgg agtattcatc 1620
aaccatccct cttcttggcc ctgtccccc taactgtcca tttcctcct taccctagct 1680
agtagagacg ccactctgtc cctaagatcc tctttgtagc atgaacgaag gagccc 1736

```

&lt;210&gt; 255

&lt;211&gt; 1116

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 255

```

atcaggcaat ggtatcgggc tctctcaagg gtctagcatc tagaacggtg ccaattatgt 60
agcaggtgct tgcaggtttg ttagatgatt agatgtttgg aacaaccaag taaaatccat 120
gacagcaagg acttgatgtt gttcatcttg ttgtcttgag tgccatgaac tgttctgcc 180
atgtactaaa tatgtcaac tgattccaac tacttttagc tatactactt gagcacatga 240
cagtcttttg ctgaggtgct ttggcattct ttctaaaaga tagatgggtg tttcattaat 300
gtggtatcca tttgggtttg tgagtcttg gatgatgcca gtagtatgta agttaggtaa 360
aatatttctt attttctca ctttggagtt tgttttctt atttaaaagg gactttgaaa 420
tttaagtatg tactgtagct ttaaaactgc atttctgcaa aagcacgtgc atttttaaac 480
aatgtaatct ttatctttgc agttatgata tgactctgac aaatgcttgt attgcttaa 540
gtcaaatgat gattactgcc aaagaagatg atttaaatc attcaatgcc acagacctga 600
aggatctctc ttctcatcaa ttgaatgagt ttttagcaca gacgctccag agggcacctc 660
ttccattggg gcacataaag cgaatgcaag aggtgtacaa cttcaatgcc attaacaatt 720
ctgaaatacg attcagatgg ctgcggctct gcattcaatc caagtgggag gacgcaattc 780

```



```

ctttggcgct aaagatggca actgaacaag gaagaatgaa gtttaccggg cccttattca 840
aggatcttgc tgcctttgac aaatcccatg atcaagctgt ccgaacctac caagagcaca 900
aagcaagcat gcatcccgctg actgcaatgc tgggtggggaa agacttaaaa gtggattaaa 960
gacctgcgta ttgatgattt tagagatttc tcttttttaa atggaattcg taaagaaata 1020
taaaacttca gctcacaatt aaaactgtct ttttagtttt ggctttttat tgttttgttg 1080
gtgattttac tgaaataaag ttgagctact tctttct 1116

```

&lt;210&gt; 256

&lt;211&gt; 2039

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 256

```

ggtttccac gttgcagaga ctaactgaaa ggacatgagg gctttaccct gggaatgctc 60
tgctggggca ggtgggtgtt agctgcgatt ctgtgttatt ttccatccct cagaggtctg 120
cgggggttcc gagaggctcg ccgggatttc tggcgggggg ctgagagcct ggaggctgcc 180
ctgaccacac acgcagaggt tcccaggcgc cgggcccagg aggcagaaga ggcaggagct 240
gctttgagga cggctcgagc tgggtaccgg ggacgggcac tggattatgc cctgcagatc 300
aacgtgattg aggacaagag gaagtgtgac atcatggagt ttgtgctgcg tttggtggag 360
gcccaggcta cccatttcca gcaggcccat gaggagctga gccggctgtc ccagtatcga 420
aaggagctgg gcgcccagtt gcaccagctg gtcttgaatt cagcacgaga gaagagggac 480
atggagcaga gacacgtgct gctgaaacag aaggagctgg gtggggagga gccagaacca 540
agcttaagag aggggcctgg tggcctggtg atggaaggac atctcttcaa acgggcccagc 600
aacgcattta agacctggag cagacgctgg ttcaccattc agagcaacca actggtttac 660
cagaagaagt acaaggaccc tgtgactgtg gtggtggatg accttcgtct ctgcacagtg 720
aaactctgcc ctgactcaga aaggcgggtc tgctttgagg tgggtgccac cagcaagttc 780
tgctctctcc aggtgactc agagcgctc ctgcagctgt gggtcagtgc tgtgcagagc 840
agcattgctt ctgccttcag tcaggctcgc cttgatgaca gccccggggg tccaggccag 900
ggctcaggac acctggccat aggtctctgt gccaccctgg gctctggtgg aatggccagg 960
ggaagggagc ctgggggagt cgggcacgtg gtggcccagg tccagagtgt ggatggcaat 1020
gcccagtgct gcgactgccg ggagccagcc ccggagtggg ccagcatcaa ccttggtgtc 1080
accctctgca ttcagtgttc cggcatccac aggagccttg gtgttcactt ctccaaagtc 1140
cggctcttga cccttgactc atgggagcca gaactagtga agctcatgtg tgagctggga 1200
aatgtcatca tcaaccagat ctatgaggcc cgctggagg ccattggcagt gaagaaacca 1260
gggcccagct gctcccggca ggagaaggag gcctggattc acgctaaata cgtggagaag 1320
aagttcctga ccaagctgcc tgagattcga gggcgaaagag gtggcccggg gcgcccagg 1380
gggcagcctc ctgtgcccc aaagccttcc atcaggcccc ggccaggagg cttgagatcc 1440
aagccagagc cccctctga ggacctggga agcctgcacc ctggggccct actgtttcga 1500
gcgtctgggc atcctccatc tcttcccacc atggctgatg cccttgccca tggagctgat 1560
gtcaactggg tcaatggggg ccaagataat gccacaccgc tgatccaggc cacagctgct 1620
aattctcttc tggcctgtga gtttctctc cagaacgggg cgaacgtgaa ccaagcggac 1680
agtgcggggc ggggcccgcct gcaccacgca accattcttg gccacacggg gctgcctgc 1740
ctgttcttga aacggggagc tgatctgggg gctcgagact ctgaaggcag ggacctctg 1800
accatcgcca tggaaacagc caacgctgac atcgtcacc tgctacgact ggcaaagatg 1860
agggaaggctg aagcgcccca ggggcaggca ggagatgaga cgtatcttga catctccgc 1920
gacttctccc tcatggcgctc agacgaccgc gagaagctga gccgtcgag tcatgacctc 1980
cacacgctgt gacctgaggc caccggcccgc cgctgctcc cttcccgcac cggccctct 2039

```

&lt;210&gt; 257

&lt;211&gt; 1338

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 257

```

cgcaatcctt cctgtgagga tgggocgctt cgggtgttga agcctgagtg gtttcggggc 60
cgggacgtcc tagatctggg ctgcaatgtg ggccatctga ccctgagcat tgctgcaag 120
tggggcccgct cccgcatggt gggcctggat atcgattccc ggctcatcca ttctgccgc 180
caaaacatcc gacactacct ttccgaggag ctgctctcc caccacagac tttggaagg 240
gacccggggg cagagggtga ggaagggacc accaccgttc gaaagaggag ctgcttccca 300
gcctcgctga ctgccagcgg ggggtccatc gctgcccccc aagtgcctt ggatggagcg 360
gacacatcag tcttccccaa caatgttgtc ttctgcacgg gtaattatgt gctggatcga 420
gatgacctgg tggaggccca aacacctgag tatgatgtgg tgctctgct cagcctcacc 480
aagtgggtgc atctgaactg gggagacgag ggcctgaagc gcatgtttcg ccgatctac 540
cggcacctac gccctggggc atcctgggtc tagagcccaa ccctggctcg cgtatggcaa 600
gagaaagact cttacagaaa cgatctacaa gaactactac cgaatccaat tgaagccaga 660

```

```

gcagttcagt tcctacctga catccccaga cgtgggcttc tccagctatg agcttggtggc 720
cacacccac aacacctcta aaggcttcca ggcctcgttg tacctgttca caaggcccg 780
tcccagcac taagtggccc ctaaacagaa agtggtgaaga ggctgccctc gctgctcata 840
aggacctggg ggaagaggaa agtggtccaa ggtctttcct ttctgactcc aaaaatagtt 900
tcctttcttg gatctgcaaa gaaagctttt ctcccgctgc tgcctcagcc tcctccctat 960
gcctctggca cctgtgcagc aaggctggct gtgctggagt caccatcatc ttctctctcc 1020
ccagcttccc aggctggatg gcatggactg tttgtgacc tctgttctct tagggcatgg 1080
gaggtgggag gatatacaat tctctagccc tttcctccta ttctcccaag gagagagatt 1140
cccatttctc ctccggccatt gtacctagct cttgtcccta gctgcatttc agtggaccat 1200
ggatagaggg actgagggtt agacggggaa gactggcagg gaggcacgca ggtactgtga 1260
aaatccttcc ctttgccttc cccagtgagg agaggggggt gggttttcaa tgtgagaaca 1320
gcacaataaa cttgatgt 1338

```

&lt;210&gt; 258

&lt;211&gt; 1213

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 258

```

agcagatgga cctatacggg taaagtggct tctgggcgga aggtacacta taggctcggg 60
gaggtagaat tgggctatct gctgaagctt cttgggtggc cttgctagcc caggaagaaa 120
cttacatttt gatttttttg taccatggct ttgggtcaca aattgctgca tgggtacttat 180
tttctcagaa aattctctaa gccaaacttc gccttgatc catttttggg tattctcttt 240
gcagagtatt ccagtagtct tcagaaacca gtggcttctc ctggcaaagc ctctcacag 300
aggaagactg aaggggatct gcaaggagat caccagaaag aagttgcttt ggatataact 360
tcttctgagg agaagcctga tgttagtttc gataaagcaa ttagagatga agcaatatac 420
catttttagc ttttgaagga tgaaattgtg gatcattgga gaggaccgga agggccacct 480
ctgcatgagg tcttctgga acaagccaag gttgtctggc aattccgggg gaaagaagat 540
ttggataagt ggacagtgaac ttctgataag acgattggag gcagaagtga agtgtttttg 600
aaaatgggca agaataacca aagtgcactg ctatatggaa ctctgagctc tgaggcgctc 660
caggacgggg agtctaccog aagtgggtac tgtgcaatga tatccaggat tccaaggggt 720
gcttttgaga ggaagatgtc ttacgatttg tcccagttca atactctgta tctcctgta 780
cgtggggatg gtcggccttg gatggtgaat atcaaggagg acacagattt cttccagagg 840
acgaatcaga tgtatagtta cttcatgttc acccgcgggg gaccctactg gcaggaggtc 900
aagattcctt tttccaaatt tttctctctc aatcgaggaa gaatccggga tgttcagcat 960
gagcttccgc ttgataagat ctctctataa ggattcacct tggctgataa agtggatggt 1020
ccattcttcc tggagataga ttttattggc gtgtttactg atccagctca tacagaagaa 1080
tttgcctatg aaaattctcc agagcttaac ccaaggcttt ttaaataaag atcatatggt 1140
agttttgttt tactaatcta aggtactag catctacaat gatatagaca aaataaaaata 1200
tttctttaat ggc 1213

```

&lt;210&gt; 259

&lt;211&gt; 957

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 259

```

cagaggcagg caggattttg gagctggaag aatctgctct ccggtggctg ccctgtgaac 60
agagggctcc cggtcagctt cccaggccct tcgccctatg cccagagggc agactgcctc 120
tccttgggccc ggggtggcct gggtgccagg aggaggggag catacccccac accctccctg 180
ccaccgttgc cgttccagaa cctcggtcag tgtttccctg tctgggggca gggcccagag 240
cgagcacgag tctggcggtg gctgtcgttg tgttctaccc cgtactgacc caacaccaca 300
agggctttct ctgggtccct gtccctaaga caataatcgc tttctgacaa aggagcctgc 360
acatttgggt gagcagacc aagctgttta cagctcttct ttgtcctgcc atccagtagc 420
agttagtctt catccccacg tgaacaaaat ggggaaggagc cgtgagagag gagtgaggca 480
acaggcaccg gaagtccctc gtccttccct ctgtgtgctc tgaatatgtc ctngtccctc 540
ctgacccatc tctgaccagc tgggaacctg cttgggggtc cctcaaacct gtgtctgggg 600
tgtgggctca cagatcccta tcagcctgnt tctgtggagg gctcttccta aagggacccc 660
catctctaag tcaacttgaa agggagttgt ggagaggaga cgctccaga ctctcagaag 720
ttttgaggac tgaactgggt cactcgggat ctgtgttcga atcctcccca cccctttctt 780
ttaaaggcat cctaacctgc tctgaagca caatgttttg gtgctttctt ttctcatttg 840
tgtaggtcgg tgtccaaaag ccattccaga tgccaagacc aggggcttat ttctagggaa 900
ggtaggtcgg tttccatggt tccctccctg tattttaatt ttttaacttt tgctga 957

```

<210> 260  
 <211> 1085  
 <212> DNA  
 <213> Homo sapiens

<400> 260  
 caaccatgga accttgttgg atatgagtct aggtggcctt tgattttctaa gcatagtccc 60  
 cagaacagtc tggcattgga ggggtggatt ggatggggag gatatagatt cccttgtgat 120  
 tctatcatgg tgtctatcat ggacacctca gccctctctc atctcctatc tttcttaacg 180  
 ttatctccat cctttctttg tgaagcttgt gcgcttttgt ttctcaactt tagaaagcac 240  
 acccactgta cagacatgtg tttgccatgg caacagacat ccttctccac tgctactttt 300  
 tgttacccca aataccatct ttgtcaggaa ttctcactt gacctgaagg ttttatgaca 360  
 aatcagctct gtctgggtgcc taatgtcatg tctgcagtgg aaattatggc ccagaaactt 420  
 ccagcatctt gtctcagga aatagacatg ggccctgaat tctgacacce ttagtccaaa 480  
 agccagtcca ctgaaatact ggtggctgcc tatacatctg gacccaaaga agctagtaat 540  
 cactccatg gcctcaatgc tgcttcttct tcggtgaatc aaagtaaata gtaaagccac 600  
 cagcagggtc gtggccacca gcaatggtat gccgcgcgtc aatccaagag agggcccaca 660  
 gtctctggcag agaataaaaa acacaggggc agaggaagcc cagagtcttc aataataaag 720  
 gaaaaattca atagaataaa aataaaacaa aaaatctgca tggatcataa acgtcatata 780  
 caaaatcaaa agggtaataa aatactgtgc aaaaatgttt gtaacacaca tgacaaatga 840  
 cttactttca taggacttaa tttacacagt ttaaactctg tggaaagagt aatgatcaag 900  
 tagaaaaaat ggcaaaggat atgaacaggt attctttaga acagaaatac aaatgtctct 960  
 tcaatgtagg aaaagctgag atacaattca gagcaacaat tagatgtcat tttcacctgt 1020  
 ttggctaaaa ataaaagctt ttattataca ccacactttt tttttgtttg agactctgtg 1080  
 tcagg 1085

<210> 261  
 <211> 2152  
 <212> DNA  
 <213> Homo sapiens

<400> 261  
 ctcaggactc tgacctagac atgtgatcta tgagctcaaa agattgaaaa atgttgacgc 60  
 tcaggaacat tttgtcttca cgtgtgctgc ttgtttttgt ttgggtttca gctctcactg 120  
 tttattagcc aaggaagcag cctggcttag tgc aaagagt aagggtttg gagctaggca 180  
 ggaccttgaa tagctccatg catctggctc tgcctcccca gtgtgggagt gaaagacct 240  
 cctggcggac tgtggagctg gtggagtagg ccaggagcac agattcacct ctgagtctga 300  
 tcctccaccc accacacctc agcctaagtg cgtgcagtga ttagtgtcgc ctctgtccca 360  
 ataaaagggt tgtccttgggt catggatgggt agccgggctc ctggggccag actgcctggg 420  
 tttaaatctt tgttccctta cacttttagc tgtgtagcct cgggcttcac ttaactctct 480  
 gggagctggt cctgttcata ggatcgattt gaggctaatt aaatgaggtc aagcaggtaa 540  
 gaaggcctgt catacctagc acatataggg ctccgtacat gttgttggtc ttatcactgt 600  
 taatgagtta atgcacgtca aatgagtcgt agcacctggg acatagtaag tgcccaataa 660  
 atggtagctc ttgtctttat cacatgagcc cagaggccca ggacaggagg cactggcttc 720  
 tgggaggaga ggagatagat ggttttctac attcagctct ggtagatcc agaggttttc 780  
 attctcccca cctctaaagc ttttgggtgcc tatatccctg accaacagga acccagcaat 840  
 ggaccacacc acttctacct gagccattgc acagagtcac ctctgcagtt ggctttgaaa 900  
 gaatttagag tcaagtttgg aataggcaat tcagtcacag gtttcaaaaa taaaaatata 960  
 tacattgtct tagtctgttt gggctcctgg aacaaatact ttaaactgaa taatttgtac 1020  
 acaacagaaa ttgattactc acagttctga aggtctggaa gtccgtaagc aaggtcttgg 1080  
 cagactcagt gtttggcaaa ggcttgttct ctgcatcata gacagcgcct cacatggtgg 1140  
 aaggggctgg ccagctcccc tgggcctctt ataggggcat taatgtcatt catgaagggt 1200  
 gggccctcat gatctaata cctcttaaa gctcaccctc ttaactctgg cattggggat 1260  
 tatgtttcag catatgaatt ttgaggggggt accagcattc agaccacaac acacataaaa 1320  
 cactgccttc tcttctcaca tgcccagtg ctccactct cccctgcca cccacagctaa 1380  
 gatttctagg gtcttctttt ttttgtttt aatcagggtt ttatttgcaa gtaataaaat 1440  
 taaccagctt taagtgtaca gtttgagttt tggtagtaat catgttgcca ccaccacaat 1500  
 cgagttatag aacagtttcc tcaccctaaa aagtccttct atgccccttt ggcccttttc 1560  
 cccctcctag acagccttgt tccccatccc tagacaacca ctgatctgct ttgtcaccgc 1620  
 ggttttgcct tttctataat tgtaataaaa tggaaagcaga tagtatggag tcttttgtgt 1680  
 ttgacctctt tcgtgtaaca tgatttatct gattcattca tgttgcatgt attaatattt 1740  
 ccttttcttg ctgtagagca ttccatagta ttccatggta tggacgtacc attcagcagt 1800  
 tgatgaacat ttgggttgcc tccagttttt ggtgtgtgag agtaaatctg ttataaatct 1860  
 tcacagatat ggcgggtgct ggtggcttac gcctgtaatc ccagcatttt gggaggccga 1920

```

ggcgggtgga tcacgaggtc aagagntoga gcccacctcg gctagcaacg gtgaaccccc 1980
gtctctacta gaaatccaaa aaattagccg ggcatgggtg cgggcacctg tggccntgc 2040
tgctcgggag gctgaggcag gggaaatggcg tggaccggg aggtggagct tgcagtgagc 2100
cgngtttgdc cactgcct cgggcctggg cgtcgggggg ggactccttt tc 2152

```

&lt;210&gt; 262

&lt;211&gt; 2074

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 262

```

cgggcgcagg gcgcgcagcc caggctgaga tccgcggctt ccgtagaagt gagcatggct 60
gggcagcgag tgcttcttct agtgggcttc cttctccctg gggtoctgct ctcagaggct 120
gccaaaatcc tgacaatata tacagtaggt ggaagccatt atctactgat ggaccgggtt 180
tctcagattc ttcaagatca cggtcataat gtcaccatgc ttaaccacaa aagaggctct 240
tttatgccag attttaaaaa ggaagaaaaa tcataatcaag ttatcagttg gcttgcaacct 300
gaagatcatc aaagagaatt taaaaagagt tttgatttct ttctggaaga aacttttaggt 360
ggcagaggaa aatttgaaaa cctattaaat gttctagaat acttggcggt gcagtgcagt 420
cattttttaa atagaaagga tatcatggat tccttaaaga atgagaactt cgacatgggt 480
atagttgaaa cttttgacta ctgtccttct ctgattgctg agaagcttgg gaagccattt 540
gtggccattc tttccacttc attcggctct ttggaatttg ggctaccaat ccccttgtct 600
tatgttccag tattccgttc cttgctgact gatcacatgg acttotgggg ccgagtgaag 660
aattttctga tgttcttttag tttctgcagg aggcaacagc acatgcagtc tacatttgac 720
aacaccatca aggaacattt cacagaaggc tctaggccag gtttgtctca tcttctactg 780
aaagcagagt tgcggttcat taactctgac tttgccttgg attttgtctg acctctgctt 840
cccaacactg tttatgttgg aggttgatg gaaaaacctt ttaaaccagt accacaagac 900
ttggagaact tcattgccaa gtttggggac tctggttttg tccttgtgac cttgggctcc 960
atggtgaaca cctgtcagaa tccggaaatc ttcaaggaga tgaacaatgc ctttgctcac 1020
ctaccccaag ggggtgatatg gaagtgtcag tgttctcatt ggcccaaaga tgtccacctg 1080
gctgcaaatg tgaaaattgt ggactggctt cctcagatg acctcctggc tcaccaagc 1140
atccgtctgt ttgtcaccac cggcgggcag aatagcataa tggaggccat ccagcatggt 1200
gtgcccatgg tggggatccc tctcttttga gaccagctg aaaacatggt ccgagtagaa 1260
gcaaaaaagt ttggtgtttc tattcagtta aagaagctca aggcagagac attggctctt 1320
aagatgaaac aaatcatgga agacaagaga tacaagtccg cggcagtggt tgccagtgtc 1380
atcctgcgct cccaccgct cagccccaca cagcggctgg tgggctggat tgaccagtc 1440
ctccagacag ggggcgcgac gcacctcaag ccctatgtct ttcagcagcc ctggcagctc 1500
cagtacctgc tcgacgtttt tgtgtttctg ctggggctca ccttggggac tctatggctt 1560
tgtgggaagc tgctgggcat ggctgtctgg tggctgcgtg gggccagaaa ggtgaaggag 1620
acataaggcc aggtgcagcc ttggcggggt ctggttggtg ggcgatgtca ccatttctag 1680
ggagcttccc actagtcttg gcagcccat tctctagtcc ttctagtatt ctctgtttt 1740
cttgaagaac aggaataatg gccaaaatc attctttcca cttgctaatt ttgctacaaa 1800
ttcatcctta ctagctcctg cctgctagca gaattcttct cagtctctct gtccctcttt 1860
gtttgccatc agcaagggtc atnctgtgat tctgtctctg agtgacttgg accactgacc 1920
ctcagatttc cagccttaa atccaccttc cttctcatgc gcctctccga atcacacct 1980
gactcttcca gcctccatgt ccagacctag tcagcctctc tcactcctgc ccctactatc 2040
tatcatggaa taacatccaa gaaagacacc ttgc 2074

```

&lt;210&gt; 263

&lt;211&gt; 1313

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 263

```

atgagcggca tcattgattgt gttgttggct gaaagccaag ctagggttga caccacata 60
tcaaaactcca aggccagtgc acttttcatg atgtgccagt acccaccac tcaccttgg 120
atcctccctc caccgccact gttttacagg aatgccaaata ctgtgtcctg tgtgaatgct 180
aggatgtact cactgagcct ccttgaggct tgggtgaggc ccctcttgg aaggatggag 240
ctgcctagct tctcctgggt ctcatctcta tccccactcc ttctccaacc ctgtcatgg 300
tcatagcccc aaagtgcag atcttcaca cctcgggaatt tttttcacac gtgtggagga 360
ctgggattgc tagaatttgt ttctttttat tgggtgggtg cccaagaaat ctttgacctt 420
gtggaccagt ggtttctcaa atgcagatat atttaataaa gtcagggtct gtttagcgat 480
ggtattggtc cctctctggg tattttatct tattttattg tttttccca aggcttgatc 540
gtagacacat aggttatgtg tccattatag acatatgcat ctattttcaa gaagtaaatt 600
ttagttcact tactgactag aaaggaagg aaagtgtttt agagtagaca cgtcagacac 660

```

```

gacagatttt ttnccctttc cgtgctataa atgagcagtg aaaatgactt ttgctattaa 720
aagctgtaga ccagccgggc gcagtggttc gtgcctgtaa tcccagcact ttgtgagnc 780
caggcaggca gatcatgagg tcaggagatc aagaccattc tggccaacac ggtgaaaccc 840
cgtctctact aaaagtacaa aaattagctg ggtgtggtgg cactgacctg tgatccagc 900
tactcgggag gctgaggcag gagaatcgcc tgaaccaggga agtcggagggt tgcagtgagc 960
ctagataaca ccactgcact ctgacctggc aacagagtga gactccatct caaaaaaaca 1020
aacaacaaaa caaacaaaaa aaaaactgta gcacctgtaa aaaatagtaa attataggac 1080
attatcaaaag tttataggca ctagaatttg accttcagta aattcaacat tggagggttaa 1140
cagggttttc tttcctttct tcaaaatgaa aaatgagagg gaggaanaag atttatttcc 1200
ttctggggct ggagtaacaa ctggaaatgg tattccccag ccggccgcaa ttctaactgt 1260
actggccgaa gccgcttgga ataaggccgg tgtgcgtttg tctatatgtt att 1313

```

&lt;210&gt; 264

&lt;211&gt; 2330

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 264

```

gggaggcaga ggttgcagtg agctgagatc actgagatcg gccactgcac gccagcctgg 60
gcgagagagt gagactctgt ccctacaaaa aataaaaaaa taaaaactat ttttcattta 120
atctcaaaaag cttgcaacag cataaaaaat actttatttt cttttatgga agttgaaat 180
tcaaatgtag ttagatatgt taatatatta ttgcattgta gcttagagggt tatgttctca 240
ttctgggtta ttctggcatt aatcctgact caatcacttt ccagttgtgt gattttgggc 300
aaattgttta tattatctat ccctttgttt cttcttctat aaaatgagaa taacaatagt 360
gcctacctca tatggtagtt atgaggatta aataaattaa tatacacaaa gttcatagaa 420
cagtcctctgg catctacaag gcacttaata agtctaactt attgttattt aaatgagccc 480
tctggaaggc agggcattaa gaagatttcc agatttgctc ttggagcatc ttgagatgct 540
gaaatgagga tggcagtttc taccgatgga ctttctctgt ttgcagtttg aatgtcttgg 600
ttgatgtcat cagatgtttt ggtgaattct ctaagtggcc ccacagaaac aggcacaaaag 660
gttccttaca tgagccatga tggcgatttg tctaaagttt acatcaaatc atccagtagg 720
ggttggggaa aaggacagtt ttaagaattt ggaaataata gtttggagggt ttgtaaccag 780
atattggagg aaactagagg aattcaggat ccagtcagtg ttatagggtg acagtgcctc 840
aaagaacaata aacaggacta gaactctgata atgggcatac tttagagttt ctatggaac 900
acaatttttc tctctacagt tcccatttct accaaagata atcacaggct aatttggtcg 960
caaaataagt tttgtctcat taagctggcc tgattatata tgtaagtgca gcaagaatag 1020
tgaatatgta cacattctca agtatgccat tccagtcaga ggtttgataa tatctaaggg 1080
gctttattgg ttttgtaaag tcaatctgaa ttccttaaaa ctgtctggta ataaggaatc 1140
tgaaattaga ctttaaaaag ccttttcagt ctaagaagcc aagcagagga cttgcccatt 1200
tgtgtcctgt tacaggggaa acaaactttc atgaacttta tgtaaatatt tatattgcca 1260
tgaaaataaa agaatactca ataagtttct gaattttgga ggggttgggg tagggagaaa 1320
agaaaatgtg tttcatTTTT gtttacaaaa gtattcttca ccaaattgct gtaagttgta 1380
gggtcttaagg gaaaagagaa aaggcattct ttaactctag aaaacaaaca ttaaagaacc 1440
cgcaatattt caaagacata aaaattataa tccacctcat cagttcattc agtcccctgt 1500
aattcttgtt ctgcttgatt ttgggttagc agcctcatga atccattggt tttccattag 1560
agtgtctgaa attctaccca gtccaatgct gtgatcttaa agttaccaga aacctgcact 1620
ttcaggaaat atcagagtaa aaaatcactg tctgtagatg gcaaaagatt taaaatgtcc 1740
atagttacag atttgatgac agttcatttt aatgcaattg acaaggaaat ttggttgttt 1800
attttataac atttgaagat aataactgga attatgactg ataaaattat accagaacat 1860
atccaatttc taggaatttc atacaatttc taaaacactt acattaataa tatagtcata 1920
caaaaataac ataaggttaa gcatcacctt tgacaatgct tctcatgcag tgtaatagat 1980
caataagcc tagttagttt cacatatcaa ataagcctag ttagtttcac atttatttga 2040
caatgcttcc catgcaaaga tgcttaatta gtttaatgct tgtgtttttt tttttttttt 2100
ttaaagaaat agaacaagat tttctagggg ccggtgaaaa atcccagagt tagtctaagg 2160
tcagaaaaga cttcattcag aatttgattt ttgagacgtt tataaaaaga atacccaaaa 2220
gattcaagat tcaaagcact tgattaaata ggattacagg tatttagtta tccatttaac 2280
caaagtgaca aagatttcaa aggcaaatat agagaaagcc atgtagttgg 2330

```

&lt;210&gt; 265

&lt;211&gt; 1046

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 265

```

gaattgctgt tcatctttga atgtctctgc tttactcctg aatgaacata aacacatttt 60
tttttaggttt cttgttgaca ttggctttct ttatagccca taaaaaatgc atttgtggca 120
tctcttcac agacaaaaat agtataatta tgattcaata ctcgatgaat gtgtgttaaa 180
ctaaactgtg cccaagctct gtgcaacagt acagggtttt cacctttcca ggggagagtt 240
gtggagcaca tatacatttc agccatccta catgcccaca gggacatctt tctggtctgt 300
ctcattggaa tacccttcct tatttggttt ttagtttctt tctgctttaa gcaccttca 360
gagagagaga gatgttttcc ttgtctcttg tataggcagt gcctatcgtt acagagtagc 420
ctttaaatac atatttggtg aattaataat gatacacatg aactgatgag gctctataat 480
tctatgagat aatctggtat cgtgggaata ttttagcatg ttttgtatag atagactgac 540
actatgactg gtaatctgat agtaaaaatg gcaaaatatt gagcctgagt attatttat 600
tatgttncct tctatacaaa ggggggaata aaataaagt atgtggactg taattgtgct 660
catgaaagac acaatgtata catacctcct tgagacggaa tgataaggat aacgtagaat 720
gtttaccatg atttatcaat ctctcctata taagaaaaat atttctgtc ctgaagtgg 780
aactttgggtg aagtcttttg cttgctcttt tacagactaa ttaacaagt ttctatgccg 840
gctctgtcct ttctctcct ctaccccctg aaaagtgggt aaaagtgttg catttggtac 900
ccagaatact aaatgtaaca catatgtggc aagatttgat ggaattgcac ttctgttctt 960
attatgttcc tttctggaaa attatgacaa tttgtgtccc cttagagagt gtagcacagt 1020
tttctggttg ctctcatga taatcc 1046

```

&lt;210&gt; 266

&lt;211&gt; 1009

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 266

```

tctaaacagg catccttgtg taaatgcttt gaacaaagcc ctgtcactgt ctgtgcttgg 60
aagacatgca gaaacatgac acccatggag aaccatctcc ccaccagtca tctgagaagt 120
tagcaggctt gttttaatgc tggacagatg cttggcgtgg acagtctaag agttaactag 180
gctgctcagt atgatagtga tgggtgcccc agccctcctc atggagggtga gccgcgcaca 240
ttcagcttgt ttctcatcga gacagaggac agcattctgt taagtttctg ctgctgccat 300
gataacagag ctgctgttca cattctggct cccgcaggct gtgcccggga cacaagcaa 360
ctctgtcttt accctcgtga gcgcagcttg ggccataata ggaactttctt tcatttgtat 420
ctattcttat tgtaagcctt agatcattta ttcttctctt acacttctag aggtgaaaga 480
aaaccaagt ctgcctttgt aaaaccaagc tgtggcctca ggagtcaggg ctggggcact 540
cagccttcca ccccaggcc tctcttgcca caggcctgct gcattccggc tgcatttcag 600
tcgggcagcc ggtgggttct ctgacatgcg tgataagagt gggtttgagt ttggtttggc 660
ttgtttttta cagttgaatt ctatattatt tggcctaaat attactttgc aatttgcaa 720
tgtgtgggca cctaccattt tactagccac aagtaactca taagttgact taggacctgc 780
tcataattata ccaatatttt aagtatttta tgtttcatct tattagttat tcattttatt 840
ttatctaata ctctgccaga attcattcca aaaggtaaaa attactaaac tataagactc 900
ttaaataagg cgtgtatatt agcaacttag tttctgacat atagaacatt aacattccac 960
tgtatcttaa atgtcttttg cctttttatt aaaaaattga ttaaatgg 1009

```

&lt;210&gt; 267

&lt;211&gt; 2154

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 267

```

gagggggctg ccaggctggc tgccgatgct ccgttcacat aagccagtgt gggtctgggg 60
acctgaggag cctgtggca cccacagggg gcacctatgt ctgccgtggc tctcgggtg 120
gtgccctgtg tgacaaagcc caacagcaag ggtgactcct gccagggtgg ggcagcagga 180
gggcagaggg cagagctctg gccacttctg cccacttcat tagggtttgt gaactttgtc 240
cttcacctct tttcgtgccc tggttgtgag attgcctcta acaggtaatg ccagggggcc 300
ttcactccgc ccccatgact gggaagaggc ctgtggcagc gccgctggga ccctaggagg 360
ctcagaggca gtgtgtggg agccctgtct gcaaggacgc agaataagca gtgagggcgg 420
ctgcaggaga ggaaggggct cccacagccc ccactgatgc cgctgcaggc ccctgtcgag 480
ctggggtccc agccagggtgc cccgcagtgc ctctgcagt tgcgtgatgg ataggacac 540
caggaaagag acaaaactgca tggactcaag cgagctggag ccatcttctc catagatta 600
cggacttgag cataagagta aatgactgtg aacgttgtag taaacggcag cttaagatga 660
gtaagcagag acagtgtgaa gacgagttgg tgtctgtggg agcttttagg ctgctctaac 720
ccaccattta ttgccttctg agaggtgggt ggagcacaag catgtgcctg tgtgtgtgtg 780
tgtgtgtgtg tgtgtgtatg tgtgtgtgtg cagcagcatg cgtgtgtata agcccactg 840
agtggggctc gtgcaggaga actgaggcat gaaactctgg ctcaaacctc ggaattgaga 900

```

```

gtgtttctgt cttttgggag agtacttttc tccacgagcc ctctggccac tgtgggaggg 960
aaggacaagg gttcccttgg aaatgtgaag ggtcttggcc tcatocctca ggtcccccca 1020
cagcacttcc cactactgct gctgtccctg ctggcagcct ctgtocctcc agaacggcta 1080
accagagcac actgtcccca ccgcctcccc tttctctctg gaaagttgaa gtatctccaa 1140
aggccttgga aatggcacia aggtgataag gagcaggtgc tttgtgtcag tctcccttgc 1200
aaatgtataa ttaaggcctt tcttcccacc ccaagtccaa gaacaaatgc cagccacgtc 1260
ctccgcact tggagagatg agaaccaggt ggggtcacgt aaaggaattg caggtcgggtg 1320
agaggacaag agggactccc atgttctaag cacctgttcc tggccaggct ctaggccagg 1380
ctctctaagc acatttctcc tttcattccc ctaaaaacag agtgacctgg aagtagatgt 1440
tctttgtctc ttgtcagagt tgaagaggct gagacttggc ccactgctaa gcggcagagg 1500
cagggccagc catcctgtcg caagcccgtg ctggggctgc cctttctgtt tccagtccag 1560
ttacggactt cccggccgcc actggggcct gccggtcacc aggccactgt gcagtgggag 1620
cagagcatgg tcaggagtgg cctggccgta ctctccacc cagatgaggg ccctccagag 1680
cctgcaggca tctgtgggga atcccagcct gcaggttctt ggagaagcag gtgaacctaa 1740
ggatgaaagc aaaggagggc cttgaggaag cagcccccag gcctggcagc cagcgagcgg 1800
ctgagctcat gaacttggtt cgcagcctgc cttgcccctg gaggccacgc caggtgtctc 1860
cccctgagcc cacagcccct gcttgggctg cctggcacc tccaggtggc ccggcctcct 1920
cctgccactc tgagcacatg tccggggggt gccaccagag acggctttgt tctcccagct 1980
aaggccgtgg agctgtgtg tgactgtgtc aggcctggac aaggaagacc cttagggatg 2040
acgtccccgc tgcataattt ttcaaggtga ctctgtact tggcaaggga agtccactgt 2100
gtgattgtct gtattcttaa tataatttgt taaataaacg tttgttttaa cccc 2154

```

&lt;210&gt; 268

&lt;211&gt; 2248

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 268

```

tgtaaggca cagagaacac aggaaaatta ttccattcca atttcggctt attttataac 60
tggaatgtg tacaggaatt tagaaatgga aagtaaggat aaatgaaatg gttgagaaaa 120
gatgacataa aaggaatgaa tagtagaacc aaaacaaaac attgagaatc ttgtgacagt 180
cttaaatcca gtaactaaat agtattttaca aatagaaaaa catgtcctgg acaaatcagt 240
taaaagatgc agattctggc tgtgacataa ctggcttatt attaaacaat ttccgtctca 300
gagcttcaac gtccctcattt gaaaaataaa ataataaggc cctttgacat cagagttcat 360
tgtaacgatt aaacacagta acgtgtatgg atttatggta taatgcaata taccaatgca 420
aagttttaatg aagatacttc aacagtgttg tgcctttaaa aaattgtctt tgtgtattgt 480
tcaagggaat cgttttttat agtcatttgt taattcattg ttcatttatt caaccāaca 540
ttcattgagc attttctctg ttctagatat gattgatgct agacactgga tcccccttcc 600
ccttcaagaa catactattt gttagggaac acaatacgtg ggcaactaat ttattataaa 660
tgcagttgta agtgataaat tcatctcttt aaaactattt taaaattctg atttatcact 720
agttctaact agccttccat cagtcatctc aaagtaatgg tctgtaatga gaaatcacta 780
tgtataatta tacacaataa aaatatatac aacaggtatt ttgataatat gataattaaa 840
ccaaatatag tcattgaggc ttagaatttt taaaaactgt attatatatt gtaaaatccc 900
atcctttttt ttttttagat ggagtcttgc tctgtcgcgc aggcctggagt ccagtggcat 960
gatctcagct cactgcaacc tccacttcct ggggttcaagc aattcccttg tctcagccct 1020
ccgagtagct gggactacag gcacccacca ctatgcctga ccaacttttg tatttttagt 1080
ggagacgagg tttcaccatg ttgatcaggc tgggtctcgaa ctccagacct caggtgatcc 1140
accgcctcgc gactccctaa gtgctggggt tgcagacatg agccaccgtg cccgccccca 1200
tcttttcatt tttatagctt cacctaagtt ttgaattaaa agaaataaat aattaatacc 1260
caaaatattg ttttatatca atgaccaacg taatgaaaca ctacagcaga actaaagccc 1320
tgaagtgggt aagaaaaagc tacctatcac taaatcaggc atgcttataa gcaacctaga 1380
agaaaacttt tatctgcctt gttttggctt tcctggcata cttccttact tcatctccat 1440
tttataatta agttttgggt cacaagtcta aggcāaaagga gcttccatac tgaaaatcta 1500
cattttaatg cttattttat cataaaaaata atttgggtaa ttttctgcaa gtgacttcta 1560
acttaacagt agaagttaa aactgttcaa agaccaaaagc acaacattta tctagtgtt 1620
gatcctagta taaaagaatg gcaataatta tgtgaacagg aattacatgc ccttagaatg 1680
tgcatttttt aacctattaa atttgccaat cttgcaaaact attgtttact tgtattgcat 1740
aattagatac tcatattaac atattgaatt cagaaaaagt tagcaagcca agatgacatt 1800
ctctgtagca ctatttttaa ttataatgaa tgatcacata aaactcttta gtatttatct 1860
aaagtaatta ttactctact tcatttgttt atctaaatca gtgatcattg atgtttgaac 1920
tttttggcct aaatgtttat tttgtttata ctacttgcta gagtaaaata aatttaatac 1980
atgaaaaact ctacacaatt taaaataggt taaaatttgt caatacttat gttttaaat 2040
attttttaga ggaggagtgc tgtatattat taaacaat tcttgaaatt gtttaatatt 2100
atcttttgatt ttaaaatgac atatatgtgg atttacaatg aatcaaatg tcctaaaaga 2160

```

tgtcagataa gaaatgcaag tgctttgcaa gtctaatact taatgttctt ttatgtacaa 2220  
caaaaattta ataaattaac tttaaagc 2248

<210> 269

<211> 966

<212> DNA

<213> Homo sapiens

<400> 269

gttttatata gctttcttag acataccaaa ccatcattca taaatcagat aaattattca 60  
gtttttgtgt ttagaaagct aagtatgtgt agctggaaac aaaaatgagc gtgttttctc 120  
tcctgttaaat cttagtggtg cagttacaca tgtgtggata atttcatgtt ccaggggagc 180  
ttggcatctc ccatggactg attcccagga agaaaagccc aaagggaaac ccacgattcc 240  
tttcgagtag atgtgggaaa gagccattg gaggatatga ggtcctgtga aattcagttg 300  
tgtgtgtggc tccttggttag cagtcatgtt gacatgggtg taggaggctc cccatccacc 360  
ctttacatga tgtagggacc acgtgtcttg tgagattaac cttggacaca gtggttagcc 420  
tggagaaaat gagaggccct gcctggaccc aggagaggag ccagtgcacac aggagagagc 480  
gtgcagccct ccttcccttc catttgaggg agttgtgcca ggagcctgcc cgcttacctc 540  
tgctgaagca taaatggact ttgcttttgg ggcttatctc tgatacatgc tggagccctg 600  
cctctccact gctagatgga acctggaatc tctcatctac ctcttagtct gtcagtttct 660  
acgtgtgaga agcaagcttg tgggccagtg tccttgtaga tgctgtagca cttaaaaaat 720  
aattccaggg ttccctggaa aaccagtccc agggttccta tgatctgtag tttctacctg 780  
gattataact ggttttgggt acctgaattt tgattgggta gccttaatta tagtctggcg 840  
tgatcatgta gaatcttttc tgggtgaacag atcataaagt tctatcaagg agttctatca 900  
aggcatccat gtcagtgggt ctatgctggg tacaacttga gatttttgaa ataaaaaatt 960  
tgtcat 966

<210> 270

<211> 1195

<212> DNA

<213> Homo sapiens

<400> 270

ttttttttt ttttttctg catttctat tggatatttc tttgtgggta ctctagaagc 60  
ttacataaaa catcttataat cttaagctga taactgaact ataattgcat caacactttt 120  
acctttctc tgcttttatt acattttaca tttttatatt gtgttcgttc attattatga 180  
ttcatgttag aacattatta tatatgccta tatatttacc tttatcaagg agttgtttca 240  
gtgttgctgt ttagcttcat tggtttcaac ctaattccct ttagcattcc ttgtaaggta 300  
atttcagtga tgatgaatac caccaacttt tgtctgaaac ctcttcattt ctcttttatn 360  
tcaggacagt tttgctgctg ttcacattat tgggtggcat ttttctcca acactttaaa 420  
taaataaatt cactatcttc tggcctgcaa ggtttcagct gacaattcta ttgatagttg 480  
tatggagatt tcctgcataat gacaaattgc atttttcttg ctgctttcaa atttctattt 540  
ggtttgagct tttgaccatt taatgataat gtatcttggg ttagacttgt ggttcacctg 600  
atttggatc ttttgagtat catgaatctt ggtccatttc tttccccaga atgaggagtt 660  
ttgagccatg attccttcaa ataaactatc ttttttctt ctcttccac gtaaaattct 720  
cataatgtgc tatgttgact ggcaacgtaa ggggtgttca tgagtcagac actttcctta 780  
gtctcttcat tctttactcc ttttgcctt ggggtggctaa tttcaaattt tatgttttaa 840  
gagttcacat ttctttcttc tgtgtgatta attctgttgc ccactctact taattcttaa 900  
aatttcagtt atogtatttt tcagttccag aatgtttttt tttcctcata accatctttg 960  
tgtcattctt tttgtgtaac actttcctga ttaattatc tgtgtgtgtt ctcttgatc 1020  
tcactcaact tttttacaat gactattttt aattgtcagg caacacatag atctccattt 1080  
ctttattgtt ggttgctaga ggtatgtttt attcttttta ttgtgtctta ttttttgact 1140  
cttcatgttc tgtacagctt tgtgtttgtg tgcatgcatt tgaagaaaca gttcg 1195

<210> 271

<211> 1000

<212> DNA

<213> Homo sapiens

<400> 271

tttttgagtt tatatttttc cataaaatgc aaatgctgat tcatcagtga gtcagtatat 60  
gaaaaagggc ctcttaaatg tcttataaac actaattatt ctccccagt cttcatttcc 120  
ttaaagtcac atcgctcaca agtaggctca tcttccactt ctgccatctg aaggctggct 180  
catgcccagc ctgaaccagg ggaaatgtgc agaactcacc aaaatttttc caacaccctg 240



```

acaacatttc atttcaaact ctgatccctg cctgtgtgatt 'acaaagagga tgctgctggt 300
tgtctctcac agtccctgct gtggggaaaa actgatatac aatgttctct gaacataact 360
gtcttttcac tagactcaga agctagacat aaaattttaa aaagaagagt gtccatggcc 420
atgttatacc tgccacctgc tagggcccag tcatcagtca tggttgctga tgatgagact 480
gctgaaaaga cctgagcagg atgggagaga acaaaggtag ttctttttat agcatgaggg 540
gaatgggaga cttcaaagct tccagcagcc tcatcaccca ggcttcaccc tagaagtcac 600
ttttgtcac aggctagctg aggcctctgg gcctctcctt gtgcctcttc atattcttct 660
tctggtttca gctgagggcc agggatcac accgtcttaa ggatgggctg cttagggggg 720
gccatgggg gaacgatctt ggtatgcatt ctccagcttc cataggggtt tgtcaactgc 780
ttttcgaata caacatactc caggacatcc ttgggtacat cttcctgtcc atacatcaac 840
eggccaaacc ggtcatagat ggccagagtc tgcggggtgt gcctgcgtac ggtgatctgg 900
ccgtacacgt tgccctgggt catcatactt gaacagcga cttgaacaac atgagagggc 960
tctaaagatt ccacaaagct ccagcggacg gtcttagaaa 1000

```

&lt;210&gt; 272

&lt;211&gt; 3515

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 272

```

gttttgattt gcacaagtaa tccatgctca tagaaactag aaaatagtaa agaaaaagat 60
taaattctccc ttacctgag gcaaccactg ttaactgttt ttctaggcat gtatgtatc 120
atgcagcccc ttatttaaaa agtgagttat atatgataca tgttgctctg ttagctgctt 180
tcattcagca ggctgttggt gccagcttcc tatgtcaggg attatgggct tccgtcatga 240
ttttcctttt ggctacacaa tagcccatgg tgtggatgtg ttgggaattt actaccctca 300
actgttagat gattaaatgt atgattaatt cacaccatgc catgtgatta tcccatactg 360
tacttttaggt atggtaatct tcacctgggg atcttctggt cacataaaac agttttttct 420
ctgagggaaat tagaacttta tacttttctt ttgtattttt tatatttttt cttagaagaa 480
gctattaaaa aataagttgt ttccctcagac tgttttagctg taattgtgaa taatttgcca 540
ccctttgtgg cagaagatgt ttgaaggcca cttgaaggaa gaactcgtgt cataaaaaa 600
actgtagtta ttctttacta ttcaggtgtg tttgtttcca caggcactgg gtgcaagttc 660
ctgtgaaata tgccacgagg tgttcaaate aaaaaactg cgtgtgctca aatgtgggca 720
caagtatcac aaaggggtaa gagctccttt tggccatcct tacagcatgc attgggacct 780
tcaaatattt tcaaaataag aaaggaattg tttctagtc atcagtattt attgtgcttt 840
caactattt tctttgcaaa cctcccgtgt cagtgttcag tgccctcctg tctcacacc 900
agctctgcag gaagggcagc tctggagacc gtcctttcca tcccttggtg ggagagggga 960
acagcagctc cagccactcg ttagtgctga gattcaaagc agtattagtt ccttgaaagg 1020
tgatttctta cacacttgac taaatggaga aacagtgaac ccattttttt gacttagtgt 1080
agtatatgaa gtcagtttaa catttttagag gagaaaaact aaacctagct gagtcccttc 1140
tgctgaccc agggacagtc ctgctcgtac cgttctggga tctgtgtgtg aactatcatg 1200
gtgttctagg taccgtgagc atttggtgac acccctgctg ctgggttaga acagatcagg 1260
tctctgccat ggggatttgc taatcccttg gaacgggata aatacagcat gctcactgaa 1320
aggaattgag accacttgcc aagtctctgg tgtggtgtgc ctcttggtg acagggctct 1380
atatttgggc tagctgactg tccacagcct ctgcagtgtg ggccagcaga gcaggagtgt 1440
ggcgtgcagg ctggagggct gttccagagc caagggccaa ggccaggcca agggatgggc 1500
taagaatgag tgattgggtc atagggccga gaatgccagg ctctggaatt tggcgagct 1560
gaagtggaag agccgagcct ggaaccgggg atcagggcaa gaccacccc tgaggccagg 1620
ttggaggccc agagcgtca ggatctgacc ctgaggtggg atcgttttgc gctggggctt 1680
tgtccacact ctggcctgag cgggtgttgg tgtccctgag tattgggcag ctccaggccc 1740
aagagaccaa gggcaagtga gccacgcctg ccaaggagcc cagcagcaca ggggagctaa 1800
gcttcctcat ggtcctgaag gcatcttctg atttgtttt ctctttttca gtgctttaag 1860
cagtggctta aagggcagag cgcttgcccc gcctgccagg gtcgtgatct cctgacagaa 1920
gagtcacctt ctggaagagg ctggcccagt cagaatcagg agctgccttc ctgctcttct 1980
aggtagtcac acttactaa agtgtcatcc accagtgtgt tgaatccgaa gaatgacaat 2040
ttctaccac tgggtgtaaaa aacaaacatt tgaagacct tgtgcattgt gtgtcaaaa 2100
gctaaataca tggaaatcgt taatatcgt gatattaagt aatttccca ctctgagtga 2160
atactttgat gattgccaac agtggctaata aaatgacgg ctaccacact catgggtcac 2220
tggggctgcg cagggctctt tgaggtgggt ggcttctttt ggaaagtact atgaacgtct 2280
cgaagcagta ttctagtgt aagaattctt aacatagcca agcggccccc gtttgttccc 2340
cacgtttgtt ccccttttct gtttgaaaaa cctgttctgg tagctccaca agagagatga 2400
tactgacttt ttaaattttt tacaagagtc tgtattctg atatgcctat atttttctc 2460
aaagattctg cattttaagg atgggcataa gcaaaactata ttttaataat ttatagttaa 2520
tgttaaaata ttggctgatt tagacaaaaa gattcaaate tctctttgt gaaatcccat 2580
ctgcatttga ttttttatta ttttatgttc ccccgtaga ttgttttaag tgtttgcttt 2640

```

```

tcatctttta tagatgtaat ctgattttca aaaatcatta acacttttta attagtatcg 2700
actaagactt tttccccctg gaatcgaggc tgtgtgtccg tcatcccagc ccccggttgg 2760
agcctgctct ttgaactccg ctgccttcct tagcagcttc tgtcctcttc tgtgagtcag 2820
tcagcgagtg cttgggatcc gcatccagcc gtgctgagca cacaacaggc tgtgtgtgga 2880
aatggccacc accattctcc tccccaccc caccacaaaa agagaagctg tgtctttaga 2940
caaccctgag gtatctgtgt tacaatcggt ctgtgtttga tatgtgtgta aagtatgcat 3000
gcagtcctgt actgtgacct aagaacaaaa ctgtaactgc attagaaacc atgaaaaaat 3060
tagatattgt tttgtgactt ttagacagtg gtaaataatag aaccatgaat tctggtcaca 3120
ttccatttct ctccaacatg aaggatcaaa aaatgttttt caatgtgttc tttgttccac 3180
tggaaactta gagtcagag tttatgagct gatttggtea ccttccctcg cctttgttca 3240
ctgtgtctta tgatgtctta gtgacttagt tottagaagc tcacgcctta gtttgaaca 3300
gattctccac ggtggtcccc aaaacactgt ctgcatatcc ataagaattg agcgctatgg 3360
gtgttaacgt gcatgaggat cagtttgcag cagcaagtac aaaaggagaa gaggaacatc 3420
cgttgaatga gtgtgttttg tacataactt cagatacttg tgaacatgcc ttatatttgt 3480
ccaacaactg tcagaataaa gaacattcta aaatg 3515

```

&lt;210&gt; 273

&lt;211&gt; 2317

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 273

```

gtgagttcta tcttaactgt gtattttccac tcccccccc agctctaaat taatgaagaa 60
ataggaacat atctgagggg tgcctggcca agcttgtcat tggagtctgg cccctaagtt 120
ccatctggga aagggtacac ggggtcccaac ccgaagtccc acattcttta tgcttggat 180
ccagatgatt tatctaaccac ttacttctcg tttgcagcct gccttcactc ttcgttgagt 240
tattcttcat gcagatgaca tgtagtatac tgtttgtggc tctggacgca actggagaga 300
aaattactga aggatcttga attaaattgt cttagaaaac agagactgct gaaggttgaa 360
gcagctacca cacctctgat cagaaaacct aaattgagag gaaaaggggc aattcctcca 420
ttaggtattg actggtgat tttgctggtg agatttggag aatctctcag ttgcaatttg 480
tccttgccct ctgtggactc tggttggatg cgcgcaagac atcttaacat gtccacgttg 540
ctgatagatg agtgtttgtg tgtgtatgtg cacatgcata tgtatatgta tatagaacct 600
ctcttataga taatagaagt gcatgcacac atttttctaa ccagtgcgac acatggcttc 660
accttctgtt gtccctcaggc ctgcccattc caggatgggt ggccccaatt tgggtggacc 720
tgcctgctcg aggtcaccca gaggagttat attcatTTTT gtatctgtgt cctgaagccg 780
tgatgcctag gagcaaagga atgatcagcg tcccggctgg aggacaagtg tttgtggttt 840
atattgcattt cagtagttcg gacactgcag gattttcccc agagacaagc aaagagagtc 900
caagctgcgt gtccctcact gcgccccctc acccctgca aatgcccact taggggctgg 960
aacggccagc cccctccacc tcgggtggtc acagaagatg gctgagggat gcccttcttc 1020
ccnatcaaca ttgaagtgtc ctctgctccc tcacaggggc cttggtgttg gaatttgtga 1080
tgtaacttca ccagtccttg ggtcaggggt cagaaagggg atcagcagcc ctggagtatt 1140
tcagctgcct gcactctgag gaaattggag ttggcagtca atgaaacagg tgcttttggg 1200
cctggggaag ggggtgtgcc aagcgtgcct gcctctaaat tgcaagaggc agctgctggg 1260
gaggatgttc cctttccaat ctctggtgga aggaggagaa aggttttggg agtgcgggtg 1320
ggggacgcga tcattccttg gctctgcctc tccattttct gggatgagat ttcggaagtg 1380
ctccaagagg agtagcttag agtagggcag cctggctcag ggtgctccct gaggtgtgct 1440
tctagtctcc ctcaaggcca agccttctca cgggtgggtg aggtggatac cctggtggcc 1500
acacagggtc gtgggttggc ctgtggggaa tctctggatg gccgtttgtg gaagtgtgg 1560
tagaagtggc ctcaacccaa agatgagcag ttgccatgt tcctggaggc ccctggtgaa 1620
cccacctcac ttctgcagc ctggcactcc tcagtgacct tctctggatc cattagggcc 1680
tagatggttg atgaaggatg ctggacaggc tctttcacct gcatgtgaat tcttaccctc 1740
ctcagccacc tgcaaggact gctgtcttcc agctagccgc ccacatagag gccaaacgta 1800
gattegaact gtttttatgt ctcccgtgta atgaccccga aggaactctt taaacacagc 1860
tgtgcaaac cttgtgagac ctgactttcc cttttcgttg ctcttcttcc caaggacacc 1920
tacatgttca ccccaagcc aaaaccgtg gcaacaaggg actagagacc cgtaatggcc 1980
atcgggtgcc cagacaaaac agtgggtgtc gatggagaat gagaatccag gagtgggagg 2040
tggggcctgg ggaagctccat cgcctgcct ggcatttcta ggtccccag atgctctggg 2100
gcagtgagct gagccacgtg gcaccccac tccctctctg gtccctgctt ggggaccacc 2160
cctagacttg cagcttttca tggtaacctg cgtgttcact taaatgcttt gctttccctt 2220
tctgctttat gatgatgatt gttggtatat attttacaat gaaatggaaa acaagttcca 2280
gtcattgctg gttcctagac cttggttaatt aaaagtt 2317

```

&lt;210&gt; 274

&lt;211&gt; 1267

<212> DNA  
<213> Homo sapiens

<400> 274

```
cactgctttg gtgccttttt ttgttttttg gctcgggtgt ttgactgcaa gtcttttttg 60
atagaatttt atagtttagaa agtagctaac acttgggttt tataggcaca aaaaacaagt 120
cttatactag ctgtacttta ttttttgagt tcttattaat gaggaacatc cacttttgca 180
ttgacagtga tttcaagatt gctttatcag cctttaaagg attcttgact agtcgtgcac 240
atcagaactg ccagggtcccc agtggttctg aagcagtaag ctttgggtgg gctctggcat 300
cagcactttc actaagcttc acagataatt ctgatgcata ctccaggcct gaaccactga 360
tcaatttgaa acatgcataa caaagcaaaa aaagttttgt ttccactttt gaaatacagt 420
taactctttt accatgccag agatcattca gagagacagg tcgttgctcc ggagtgtac 480
agatctggca gtaccagcc ctttgggtg tgcttagct cagcacctgc ccacactgcg 540
agccccgtag atgtgccttg tcttccctgt ttcagcactt aacacactac ctggtacaga 600
gtatgtagtg ggcattctgt gaatgaatgc ttttccccgt agcagtgtat tcatacaata 660
ttaatataat tgtcccctgg cttacagata aaaaatgaaag catcaagtgc ccagtgtagt 720
agaccaggt gttcttcctc caccctagt ggtcccctgg gcaggctctt ttttttttg 780
taacactcac cagtctgttc tgtagtcaat cattgattga cttgtctgtg aactgacagg 840
aactgtttca tagtttcatt agcacagagt aaacatgttt gccatgcaag gttattttgc 900
atctgcaatt aagtgtataat gttgaatcaa tgaaaagtgt tgattaagca gtagttgtag 960
atatgctaag tttttcaaat tactaatatc aagtggagat tgtttttact ttttaagggt 1020
ttgcttttgt gatagcataa ataattggtt tcttttttg taatgtaaat taattgctgg 1080
caacttttgt attcccatag actggggaag ctttaattgcc tttacaagta cttatgtaca 1140
actttgtatc aaattttctg taatagttta tgcttttagta ctatatatgt actaataatt 1200
ttatctgact tctgtttata tcatttgtac aattacatgg ttgtaaaata aacttttaaa 1260
cctcacg 1267
```

<210> 275  
<211> 1439  
<212> DNA  
<213> Homo sapiens

<400> 275

```
actagataga aacctttatt tcacaacttt atcatcattc acattctaaa aagacacgga 60
ctggggggaca cagctgaaaa cagtgggagg ccagatgctg gcattctcca gacgggagca 120
tagccatggt cactctagcc gatgtctcct ggggctctca ggcggcaagg accagatgca 180
ccactactgt ccaatcccag ttttacttag agccacctcc ttttttgggg ccattagtcc 240
ttatttcatg ccagattttc actageggct cctgtttctt ccaaactcagt tcatgacctg 300
aagtaacata ccatattcca aaaagagctc ccccaagatg tgccgcatga tcaaaaaatt 360
tccatcccag gatcattcct gctgtatcca tggcgataat ggctttcagg gcattccctg 420
ctgtgaacgt gaacatcgga aggaaaataa tggcaagcct cccttctggg atcttagtgc 480
agacagctgc gaggactgtc atgatgcacc agatgcacca agtgatggc atattctcct 540
gtggcaactt taccaggtta actgacaaat tggaaataac acctgcagat aggtacactg 600
ccatgaactg ctcttgacct agaattgtca ctatgctgga agagaagctc cacaaaaat 660
acataattgc tgccatgtga aataaggaga agtgactgaa tgttgacagc aacattggag 720
aacaaggacc tttgaggctg gattcgatgt gaaatatctg atcattgtcc gctgcagaga 780
aggtaactct catnaacaga atacaaggac atttgcagct ataatactc aggttctctg 840
ggaaccaggc aggtgcaaag atcaacctgt tggcctcaca cagtggctat catttctttt 900
cctaggcagt atccacaaa ctaattagg actgggtcca cagctacctt ttggtttgat 960
ttctcttccc ttgaatgggt aaaacgtgta agctaacaca aacctgtcac agtccgctgg 1020
ccatcactta ggttattcca ccacttgta atctcctttc tgaagtctcc ttctttttgt 1080
ggtcttatgc tatccaacca atcagctttt ataccatcaa aataactctg gacctggat 1140
ttcagtgatt catattgcca aatagcagct gatccaaatg cacagcctgt aaaccaaca 1200
gtaaaaaata aaggttttat gagactcctt ataggatagg gagaaggata aaagactgtt 1260
tcttccacag gaggaatcaa agcacttctc ttgtatgctt caccacttgt ccctgggtct 1320
gatcttcgag gttcaacctt cctgggtgct tttctgaatc cgcatttttg ttgaataaag 1380
aagttaaacc tgcgtccgag gagctgctgc ggggttagga ccgcagttag ctccttnna 1439
```

<210> 276  
<211> 2035  
<212> DNA  
<213> Homo sapiens

<400> 276

```

tgaagtctaa tttatcagta ttttctttca taagatgctt ttttatatct agaaactcat 60
caccaaaattc aaggtcacat agattttctt ctatgttttc ttctagaagt tttatagtat 120
tggtgtgtag ttttaggtct atcatctaat tcatgttaag ttttgtgaaa ggtgcaagat 180
ctgtgtcttag atttatgttt ttgcctctgg atgtcccagt gtcccaagta gtagagaact 240
accacttggt gaaaagatca tcctttcccc attgaattgc ctttctctct ttgtcagtat 300
cagttgactc tttttgtatg gtccactggt cactttttata atgacaatta ttttttctct 360
tgtgccttaa aaaatgctta attgagacgt agtcacatac cttacaatcg cccgtttaga 420
gtgcactggt taatacagtt ttttagtaac catctccaca gtcaattata ttaaaagtca 480
actttttaat cttaccagaa ttctttaatt tttcagttcc cctcactgtg gttaatatct 540
ctcgacttga caccacttcc ttaaggagaa cttcagcttc tccatccttc cctaattggt 600
tcttttcata attgcctggt ttttgaatat aatagtgtct ctgttatttc taaagatact 660
gatttatatt agtatgttct tcttggtttt gttagcatta gatataattg tgagtagttc 720
tttcatgggt ttggttttcc tggaaatatt agtgatttgg gattgtctgc tcaacttgag 780
tgtttgagga tattggtttg cttcttggtg aatatactga ttatgggagc atacctctgg 840
tgacaggaag gagtaggaac tgctgcctaa tgtatagagg tatgccagta agttctcttt 900
tgactgccaa gttcccctgc ctgctggggg ggtggttaaa atccctccct ccaccatgct 960
ctgagcttca gcttaggctg tgcttgccca cttctcagaa aaaggccact cagaagggtta 1020
ttgggattca cttgtgcaaa gatcctgggt caagttcgcc tataatcttc tggagatccc 1080
ctcaggggtcc tctccgtag tctagattct gagtttggag cacagcagaa tcaactttac 1140
cttcatagag acctctactg ggcataatcta tgctaggttt tctcagactt ctcagtcact 1200
atgtctcatt aactttttta tcttataaga attcctcgat ttctgaactg cggatagcaa 1260
gatagtgttc tttctttttt tccagccgag ttaaggattt cttactcact taatggtaac 1320
aatagtagca ataccacctg ccactaataa tagtgattta aaagggatta taggcagaaa 1380
tgtaagtaga tatgtctggt cagactgctg tctgtcttga aacaagggtta tcttttcaat 1440
actcatagct tttagccttt agcttttagt cttattattt ctagaacaca ttctattttg 1500
acagcttcta acatttttgc agatgcattg ctgcctttct gaaagcgtgg atgaaagcca 1560
aatggcaaca tttgggggaa attggtgtag ggtggaattt actttttctt actggcagag 1620
tatgtgctaa gtattcatat aaattagaga tgggtatagga ggggaattag gtggttgaag 1680
attaagatgt atctattccc agcacttttg gtggtgggga tggggggatc acttgagccc 1740
aggagtttga gactagccag ggcaacaaag tgagacttcc tctctataaa aaaatacaac 1800
aacaaaataa ttagctggac atggtggcgt gaacctgtgg tcccaactac ttgggagggc 1860
gaggtggaag gctaaggtag aaagatcgtt tgagctcagg aagttgagggc tgcagtgagc 1920
tgtgtttgtg tcaactgcact ccagcctagg ggacagagtg aacctgtct tcaaaaaaat 1980
acataaataa aattacaaag ggggtggagac aagggttaagg aaaaaagaat gttttt 2035

```

&lt;210&gt; 277

&lt;211&gt; 1370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 277

```

acctatatac gagggttact gtaaccctca ttctataaat aagcaaatca aagcagaggg 60
gtttcatatc ttgctcgggt tcacacaggt gctaaatgga gggtttggga tttgaacctc 120
agcactcaaa ctgtggaggt ttggagtttg aggtgctatc ttcatatgta tcttcagtag 180
tgtttggtg catgtatgtc cttccttggt tcagtgccat agattatatt ctaatgaatt 240
tttttggtat cacattttac agtgacattt gaattttctt tcaagtctca tattcatcag 300
aacaatcaga agtggaaata gctgtgggtt gaatactttg atcttgctta cctaataaac 360
aggctttcta aaagaaaata atgtttatth gggaaatagg ctttgacagt ggaattctgt 420
tgttacagta aacctgtgac atatacaggg aggtaaaaga agaccaaagt ttttaaagga 480
aaaatgagga ggatttcata attattttga gataattatt cttggctaca aggttcaata 540
aagtgctccc attctgaggt tggaccggca gttgctggca gatgtcctca cagaagtttt 600
ttttttttta aaaaaaacia cccccaccac cccccaaaaa aaacagtgtt actgtgttgc 660
ccaggctaga tgaactccag tgggttcaag caatcttctt gcttcttggg tagctgggat 720
tataggtgtg tatgtaccat gcacctggct tgttttgggt cacgttttgt ataaggttgt 780
agtttttgca gagtcttttg tgatagtttt tatcatgcat acccgcatga cagcccttcc 840
ttcatagcct tccctggctg tttgtcaggg tgtttttttt ttgttttgtt ttgtttaaaa 900
aaaaacagaa caaacactac tactactcca gtttgattct gataactttc atataagtct 960
gttcatcaag gtgttggtat ccatccaaac tctttgttgc cttaatagat tttgtttttg 1020
tgtgtaattt cagtaaggca gctcttactg gttaatgttt ctggtaaaaa tttgcatgct 1080
aggccagggt cagtggctca tcatgcctgt aaaccagca ctttgagagg ccgaggtggg 1140
cggatcatct gaggtcagga gttcgagacc agccagtcac acatggcgaa acccatctc 1200
tactaaaaca aaaaattagc caggcatgct ggagtggtgc tgtagtccca gctactcgt 1260
gaggtgaggg caggagaatc gcttgaaccc agggggcgga agttgcagtg aaccgagatc 1320
atgccattgc actccagcct ggggtgacaga gcgagactct gcccccccc 1370

```

<210> 278  
 <211> 988  
 <212> DNA  
 <213> Homo sapiens

<400> 278  
 gcgggggactg caggcaggcg ccaccatgcc tggctacttt attagtaatt cactgctaca 60  
 aagtgagagc agctcccagg gcacagaact cccacacact gcaggctgcc cgcagcccca 120  
 gccacacact tggctcttgc cttcaagtcc agagactcca tgggcttggt ctgctgccgg 180  
 ccaaagacct cccgcacccc cagcccacac cttggtcttg tccctcaagt ccagagactc 240  
 catgggcttg ttctgctgcc ggccaaaggc ctcccgacc cccagccac accttggtct 300  
 tgtccttcaa gtccagagac tccatgggct tgttctgccg cgggcaaaag gcctcccgca 360  
 ccccagccc acaccttggc cttgtccttc aagtcacag actccatggg cttgttctgc 420  
 cgcgggcaaa aggcctcccg cccccccagc ccacaccttg gtcttgcct tcaagtccag 480  
 agactccatg ggcttggtct gccgcgggca aaaggcctcc cgcaccccca gccacacact 540  
 tggctcttgc cttcaaggcc agagactnna tgggcttggt ctggcatcgc ctgtggagggt 600  
 gacatcttcc ggatcagatc atgggcgaca accaacaggc cccggtcctt tgtcacttcc 660  
 ctccgggaact cggcgacgtc tccgggggtgc agcacctcca gctgctctgc agcctcgatg 720  
 acggcctcga tgcagcttct ccacgagcaa agggcaggga ttccgggggc cactgctgcg 780  
 ctgacggccag tcccgataac caggagcagt tcctggggct gtttccggat gaggtctttt 840  
 aaaaactttc tggatttttg ttcaacttcta tttgttgcct tttccactga atccatctgt 900  
 gaattctgcg gcgcctccga gacgtgggtc ccagctcgcg ctgccacctc ttcgcctccg 960  
 cagccgggcta cgcctccggg gtctctcg 988

<210> 279  
 <211> 2581  
 <212> DNA  
 <213> Homo sapiens

<400> 279  
 ttctcattgc atcccattgg gttgcacaca acttcagata gtcctcattc taatgcagtc 60  
 ttgttaactt tgatcacttg attaaagtgg tttttgccag acttttccat tgtaaaaata 120  
 atatttttca cttcataatt aataaatacg ttgaaggcgg tactttgaga ctatgtaaat 180  
 atcgtattcc tcatcaaaac tttatgttag tggattcctc ttttatgcac tagattatag 240  
 tcagccacag ttttgatgct tatgttatcc tggagttggc tgggtggcaac cctgcagtc 300  
 tggcttggtg gtccctttga catgtctcat tattctcgga atgcttccat atgttctgac 360  
 acaagatatt ccaggcttat cttgaatgtt ccctgcatta gtcctggaat cagccatttt 420  
 tctgaatcag ggctcttttag gtggagatcc accacctcgc gtcctcccaa gtgctgggat 480  
 tacaggcatg agccactgtg cctggcctta gataatgcac atttaaattc ctatgtcagg 540  
 ggctgggcac cgtggctcac gcctgtaatc tcagcacttt gggaggcaaa ggtgggcaaa 600  
 ttgcttgatc ccaggaattc aagaccagcc tgggcaacct ggcaaaactc cgtctcaaca 660  
 aaacatttta aaaaattagt cctggcatgg tggcatgtcg cctgtacttc gggaggtcta 720  
 ggtgggagga tcaactggagc ccgggaagtc gaggttgagc tgagccatga ttgcacaact 780  
 gcactccagc ctgggcgaca gagcaagact ctgtctcaaa aaataaaata aaataaaata 840  
 aagaaaagaa aaggatgtct ttcccacat aataaaaatg aaataaaca gtagtaaaac 900  
 ttacctctaa atgaaaaaaa aaaaaaaaca cctgcctact tagggcagta ggcagtgcac 960  
 cattttcata aaagaaaaaa acaaccaca gcaaaaaaac ctctttttct gcgaagcaga 1020  
 gaaaagacca gattaggggc atataagatg gcttgatggg gagaaccaat tttattaaaa 1080  
 agttgggttt ccttaaatta gaaatttaac aatctttggg aatttaacac gctgattcta 1140  
 tcaaaaaata tgtatgcaaa aattgccaaa aatgttttga aatgaataa gtgggaggat 1200  
 tacccttcat ggtataatga acccatgaag ctatatttat ttatgtactg tgtatttaca 1260  
 tactatgaag ctgtatttat ttacagcatc tgggtgctggg aatgaaacat attaaaaata 1320  
 gtagaacaga acagattctt gaattggaac catatgtggg agtttatgga gtcaaagtag 1380  
 catttcaatc tgtaggaaa ggataaaaca ctcagcaaaag tgttgggggc atttggccgt 1440  
 ttagtaataa attagactcc ctatcctgta ttatatacaa aataactttc agatttattg 1500  
 aagtataat tataaaagca agcccatgaa actcttttaa agagttatca tgccttagaac 1560  
 tagcttttat tatcagtttg gtgaatgtct ttccagaaat gtactttgca tgcattaaaa 1620  
 atttgtattt gttgactttt tttttttttt cctgagacga agttacactc ttcttgccca 1680  
 ggctggagtg cgttggcagc atctcggctc accacaacct ctacctcctg ggtttaagcg 1740  
 attctcctgc ctcagccttc agagtatctg ggattacagg catgcgccac cacacctggc 1800  
 tagttttgta gagacagggt ttcttcatgc tggtcaggct ggtcttgaac tctgacctc 1860  
 aggtgatcca cctgcctcaa cctcccaaag tgctgggatt ataggcgtga actaccacgc 1920  
 ctggcctatt tattgacttt ttacgaaaa cagaatttac tctgtgttat tttctgaaaa 1980

```

ttgcaatggg tatactataa tatcatcaaa tcccattatg atttggattt tatttatatt 2040
tttgttcttg cagtaattct gcaatgaaca ttatgaatat aatcatgtac tcttgggtga 2100
ggggatatgt ttctagaaac agagtccctg aaccaaata gacttgcat gtattttgga 2160
agatactgtt aaatcaaaac tttgatgagc catgttaacc aaggctcttg gatttgtatt 2220
ctgaaaacta agagtaatat ttaatgaatt ttaatcaagg caattatatt acatttttat 2280
ttttgataga atactttggg aggctaggca cagtggctca cacctgtaat cccaacactt 2340
tggaagccta aggcaggtgg atcacttgag gtaggagttc aagatcagcc tggccaacat 2400
ggcgaaaccc cgtctatact aaaaaatata aaaattagcc aagcatggtg gcatatgcct 2460
gtagtcccag ttacctggga ggctgaagca ggacaattgc ttgaaccggg gacacggagg 2520
ttgcagtggc cagagattgc gccactgcac tccagactgg gtgacagtga gacgccttct 2580
c

```

&lt;210&gt; 280

&lt;211&gt; 1266

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 280

```

cagagctccg gcagcgcccta acacatgttg acagtcccct tgaggtccca gccgggcctc 60
tggggccagg gaaactgact ctgtgtgact acagtgaaga acgaaagctg gtcagcattg 120
ttcatggttg ccggtcccct cgacagaatg gacgtgatcc tcctgatccc tatgtgtcac 180
tgttgctact gccagacaag aaccgaggca ccaagaggag gacctcacag aagaagagga 240
ccctgagtc tgaatttaat gaacggtttg agtgggaact ccccttggt gaggcccaga 300
gacgaaagct ggatgtctct gtcaagtcta attcctcctt catgtcaaga gagcgtgagc 360
tgctggggaa ggtgcagctg gacctagctg agacagacct ttcccagggt gtagcccggt 420
ggatagacct gatggacaac aaggacaagg gcagctccta ggagctggcg agtcccagcc 480
tgactgctct gtcttctctg cttcgtctcg ctccatcacc gcctcaatgt gatgagccta 540
aagctagggt ccaaggcgag agcctgtgcc cttcagccct ttcacctaac aggcccatat 600
tcgggccttt gcctgaccaa agagaagaac cgtatgttcc ctttactgca cggcctttat 660
ccttctgggc ccctggggcg gggacctgag ctggtgttt cctgctttgc ctgcacattg 720
ttctcccttc ctcccaactc ctgaggcct tctgtatctg tgcctggcca gtggcagcac 780
tagcagtggg attagcttat gccaaatata gctttggaag gatctttttt tctttaacta 840
gatggtcacc ttcttcccta ccacacatgg gtgggaaggt ggacaggcta actctccagc 900
tgtgagcctc ttagactact gcatgtagca aatgttcagc agctcaggcc cccatgtcca 960
gttctgtccc cactgtcctc aacctgtcc tgaaaattct actgcttga tggctggggc 1020
cagtctcttg tcacttttga aactgaggac gcgtggattc tactcaagcc tccaagtagt 1080
ggcatatcag tcttggagct cctagctggg gatacggaga gggctttgga ggacttggga 1140
cagcagggcc aatttttttg cccaagtgc taggctgcta actcactgac tagaacttaa 1200
tctgggtact tacagttttg caccaactct gccaaagcac tggatcttac attaaacatc 1260
atactc

```

&lt;210&gt; 281

&lt;211&gt; 2663

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 281

```

cgtctcccca tggcccttgg tacatcctcc ccttctccac ccgcacctcc gtcttccccg 60
caacacatat acacaaacac ccggacccta ggtcccccag agcccgaagc cagcgagggg 120
gcgtccagcg acctgcacta ctgggtcggg aagcaggcgg gtgcggaagc gcagggcgct 180
gcggaggcct tccagcagcg cctacaggac gagctggggg gccagaccgt gctgcaccgc 240
gaggcgagg gccacgagtc cgactgctt tgacctcaag catgtggaga ccaactgtt caacatccag 300
aggaaggagg gcctagcatc tgacctcaag catgtggaga ccaactgtt caacatccag 360
cgactgctgc acatcaaagg gaggaagcac gtgtctgcca ctgaggtgga gctctcctg 420
aacagcttta ataagggtga catcttctct ctggacctag gcaagatgat gattcagtgg 480
aatgggcccc agaccagcat ttctgagaag gctcgggggc tggccttgac ctacagcctc 540
cgggacaggg aacgtgggtg tggctcgtga cagattgggt tgggtgatga tgaggccaaa 600
gccccggacc tcattgcagat catggaggct gtgctggggc gcagggtggg cagcctgcgt 660
gccgccagc ccagcaagga tatcaaccag ctggagttgg cgaccccccc actgacctag 720
gtctatgaga agggcaaaaga cctggtgggt ctggagttgg cgaccccccc actgacctag 780
gacctgctgc aggaggagg cttctacatc ctggaccagg gtggttcaa gatctatgtg 840
tggcaaggac gcatgtctag cctccaggag agaaaggctg ccttgaaccc gggctgtggg 900
cttcatccag ccaagggtca cccgacctac accaagctgg aggtggtgaa cgacggcgcc 960
gagtcagccg agttcaagca gctcttctcg acttggctct agaagcgggc caggaaccag 1020

```

```

aagctcggcg ggagggataa ctgcgttcat gtaaagctgg acgtgggcaa gctgtcacac 1080
cagcctaagt tagcggccca gctcaaggat ggtggacgac ggctctggga acgtggatgt 1140
gtggtgcatc caggacttac acaggcagac gcgtggaccc caagcgatat ggacagcttt 1200
gtgcaagcaa ctgctacctt gtgctctaca cataccaaac gcttggccct gtccaataca 1260
tcctgtgcct atagcaaggc caacaggcca ctgaggatga gatagaggcc ctgaacagca 1320
acgtgtagga actagatgac atgtatggag gcgtcctagt acaggagcat gtgaccatgg 1380
gcagcgagcc ccccccactt ctgcctatct tccaggggcca gctggtgatc ttcaggaga 1440
gagctgggca ccacggaaag gggcagtcag catccaccac aaggcttttc caagtgaag 1500
gcactgacag ccacaacacc aggaccatgg aggtgccagc ccgtgcctca tccctcaact 1560
ccagtgcacat cttcttgctg gtcacagcca gcgtctgcta cctctggttt gggaagggct 1620
gtaatggtga tcagcgtgag atggcacggg tgggtggcac tgtcattttc aggaagaatg 1680
aggaaacggg gctggagggt caggagcctc cccactttct ggaggccctg ggaggcccg 1740
gccccctacc ccagcaacaa gaaggctcct gaggaggtcc ccaacttcca gccacgactg 1800
tttgagtgtc ccagccacat gggctgcctg gtcctcgca aagtggggtt cttcagccag 1860
gaggacctgg acaaaagtatt gacatcatgt tactggacac ctgccaggta gatcttctg 1920
tggcttgtgg aagctgcctg tgaatggaac gatcggtgga ctaaggggcca ggagtctctg 1980
aagactctcc catcaggggg gagaccggac acacccatcg gtgctggtca agcaaggcca 2040
tcgacctccc accttcattg gatggttctt cacttgggac cctacaagt ggactagcca 2100
ccatccacac aaggaagtgg tggatggcaa gcccggaag cagcatcaac catctctgag 2160
ataccagcag aagtcaacaa cttccggcta tccagatgcc gggcaatgca gggcagggtg 2220
cgtggccctg caggccctca agggctccca ggacagctca gagaatgac tgggtggaagc 2280
cccaagtcgg ctggcagcag aaccagcagc tccgtcagca gcaccagcgc cagcatcaac 2340
gggggcctgc gccgggaaca actgatgcac caggetgttg aggacctgcc agagggcgtg 2400
gacctgtccc gcagggagtt ctatctctca gactctgact tccaagatat ctttgggaaa 2460
tccaaggagg aattctacag catggccacg tggaggcagc ggcaggagaa aaagcagctg 2520
ggcttcttct gaacccaagc cctctcgact gccctatcc cctggacccc aacataccta 2580
caatgctggg gaggccctgc ttccactccc ctgagaggnt tttggtcac cctctgcgtgt 2640
cagtaaaagc aggcagccca ggg 2663

```

&lt;210&gt; 282

&lt;211&gt; 1882

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 282

```

ttttgtgaat caatacaaaa tatttatttt ttttcaaacc acagaattct taacccca 60
gccacacaat aaagtcttca gaattgtaag ccattaacat ttttctaaac aatgcagtcc 120
agagatgaag ataatttcca accagcaggg atgcaatata tagtaggttc ccctatgaat 180
gaagctcaaa tttagctttc ctttaattct cccacagcca ctccatcaac agaagcagaa 240
acagtacaca tattcatgcc actcggctct gaaaagaggt tcaagggtggg tcaagggtggg 300
tcttggccag tggaggaagg aagggtgtcca ggactttagt taatcaacag tggggacaga 360
gaggaatgat ttcccttggg aaacaacagg gtccctttct catattcttg tggccagaaa 420
ctggggtgaa cttcagtggt gtaatgaaag aaacaggaga gccatttctc caggaactcc 480
tatgacctcc attttaactt ctgacaaagt taacttcatt tatacaatcg tattgaaaac 540
agtaatcaca accaaaaagg tcctataaac cctgtaataga tgtcaaaggg attcacattc 600
tgaactttaa ttttaaggac cctttaaaag gcctagactt ggattaaagt aaacgtaata 660
ttccaagcta aaagaggcac cataaaaaat caactcaaaa catccaaaca atggctagat 720
gactaatgta ggggtgtttt ctttttagtt gcaaagcttt tcagtatctc agattagtgt 780
atgttcataa aacaatgtct agttatttta atagctgctt atgagacaat aacagtttaa 840
ctcaagggca atgcctcttg cataataatc acaaaaataa ttaactgcta taaacgggaa 900
aaaagtagaa gaaataagcc agcctcatta ttaaaaggca aatctgggag ggtactcggc 960
ttaaaaagag ataaccagga ttatttaaat actatataca aggtgctctt gctcacttct 1020
aactgcagaa cccaattttg tttgctagat caccattccc ttgctagta tgcgtacaga 1080
ccaccactcg gaagttttcc ttttgtgctg aaaaacgttc aaatcccttg tttggtcagt 1140
acagaatatt gcgaggtgat gctcatgcaa actcttctct aggaatttat gtgtgcaaat 1200
ctgcaacccg acagcatggc acgcagcccg ggagtggtag ctgcacagtg tgagcactgg 1260
agatggatgt gcagtgtgca gtgttcacag ccatggacat ccattcttct gcactctcat 1320
ctccccacaa attggctttc actctagccc ccaaagggag ggtaattgct gcaaatttgt 1380
taaagggaca gaagaaaaag tcgcttgtct acaaaaataat gcacaatgca tgcactctgg 1440
tttgtgtttc ttctcactac ccttgcctaa gaccattgg gataaaaagtc acaacaccag 1500
gttttgcctt ctccccacaa aaaaaacagt agttaattcc tgtcagggtta gggtagcagg 1560
gtgacaacaa aaggtcacaa aatgacaatg ttactgaagc ttaaggccaa cttttaaaac 1620
atgtaccgtc tctcaaaaca attatcgatt tacttttaca tgtcattttt tcaagatgac 1680
tgaccgggct ttccttttaa ggagccagtt tcaggctgca catacatact agacagttga 1740

```

```

agcaaatcng cctttgacta cccagacaac ctgcctgcat gtacgggttt gtatcttcaa 1800
tgatttgggc ctttagtggt gtggtacaaa acccagtttg taattggggg agaaaaacca 1860
tttactgtac tggcaagaat ac                                     1882

```

&lt;210&gt; 283

&lt;211&gt; 1886

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 283

```

gaaatgaaaa ggagtctata gtgacaggaa gcagatcagt ggggtgcctaa aaatggagag 60
tggaggttaag ggaggtggat tacaaaaggag gcagaaactt ttaggggaga tgaatatttg 120
tgattattctg attgtggcaa tgatttcaca gttatatata tatgtcaaaag cttattaaat 180
agttcacttt aagtatgtgc atgttactat atgacaatta tacctgaata aagctgtggg 240
gaaaaaaacc aatcagcgct tatccatatt ttactgaagg tgtaagtaa gatgctagta 300
aatgacagaa ttccagctga gccaaagtctg actcttgaaa actacatttc ctcttttagtg 360
cagaaaaatat ttatgagaat gggagcgtag aaaaaatgaa atcacaataa aacaaattag 420
tttctgattt ttggacacgg tctcattttc taaattatca ctgtcagttt tttttctgct 480
gcttctagaa catgtttatt ttgcataatt tctctggctt ccaaaatctg aagaattgcc 540
tctgtttaaa ctcattttct tctttcgtgt acttgctctt gatttgctga ccttctaaat 600
ggggaccagc atctaagtct taatgcagag tgctggggac atggggaggc aggaggagct 660
ggaggtctgc tcatggaaag accttggcgc cccctcagga aggaaggact ggcttggcag 720
gatcccaggc tgttttctctg gttcagccct cccgaagaca ttgtgttctc tgcagccctg 780
gagggcctct ttctctcaat ttctcagtg ggtacctgtt ttgtaatcag tctgtcagg 840
tgaagcagcc atgttactac tggacaatca tggattatct tttcccttcc ttcttgatc 900
caggtgtctg aatttatacc accaaaattc ttccagattt tctatctagt ggttcattct 960
ctttgtact ttgtagtgc gttgtttatt ctcatgattg attttttct gagccaattg 1020
gaaggaaatgt ctaacactga ctgatcaacc cacagtgtt aagaggaaaa atatatttta 1080
gaatcttgag ggagttttat ttcatgtgat gtgaattgta ttggctatgt agcgtcttca 1140
ttttcattgt aagaagaatt ttgctacagt gggaccggct gcttctcatc acaaacagg 1200
tgtggctcag atattttccc ctttggagag cattttcctg gtcattatct tatcttggtg 1260
tctttcgttg cactcattgc tctctgagat cattttgtta atgaatttgc ttattatact 1320
ttcttctctt agattacaaa tggcttgaga gcaggagacc acctctctta ttactgtcc 1380
taacctggg acaatgtctc atatgtagta aacattaaat atttgtaaaa tgaaatttta 1440
tgtgattggg ggacaagtaa agtgtaagta ctttgggagc atctttccat ctttctaaaa 1500
gaaagaaatg aaaatagttg aggagttact ggatgaacag tattcctctg ttaaatcaat 1560
caatgacata ccaatatgtg cttgaaagac tgggcctggg cggggcgcg cgtctcacgc 1620
ctgtaatccc agcactttgg gaggccaggg tgggtggatc atgaggtcag gagatcgaga 1680
ccatcctggc taacaagggt aaaccccgct tctactaaaa atacaaaaaa ttagccgggc 1740
gcggtggcgg gcgcctgtag tccagctac tcgggaggct gaggcaggag aatggcgtga 1800
accggggaag cggagcttgc agtgagccga gattgcgcca ctgcggtccg cagtcgggcc 1860
tgggcaacag agcgagactc cgtccc                                     1886

```

&lt;210&gt; 284

&lt;211&gt; 1439

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 284

```

ctttcttcta accatggtca tttgaattgt ttttctccta tggataaagt gtttttctct 60
ttgctgattt caagggtttt tctttgtgtt tagttttcag aagtttgact ttgacatggt 120
tttggtgtgg attattttgt ctttattctg ttttgagttc ccttagcttc ttgaatctct 180
aggtttgtgt ttcttttgac aaatttggaa tgtttcagcc attatttctt caagtatttt 240
tttttttagc cctgtcttct ttaacctctc ctctgggac ttcagacaca aatgctagat 300
caattttata atcccacagg tgaatgaagg ttgttctttt ttttttttct tcttttttct 360
gaggtgggat ctcaactctg tgcccaggct ggatggagtg cagtggcatg atctcagctc 420
actgcagcct ctacctctg agttcaaacg attcacttcc ctcatTTTTT tccgntgtt 480
tggattgcat aatttatgtt tttctgtcag ttactgatt tgtttctctg tctgcgtcat 540
tctgtcattg agttcagcca ttgagttttt tttgtatttc tgtcattgta ttttttaatt 600
ctaaaatttc catttggttc ttctttatgt cttctatttc tttacataat accaccaat 660
ggggacaaa gtccaagctc cctacttcag tttccctgaa aacctccat ggaggcata 720
agggtgcttt ataacaattc accaagagta gaactctagg ctccactg accctttttt 780
ccctatggca tttggctgga atagaatagt tatcgaataa aagtttctgt catggtaggc 840
tgcccccttc ctggctcttt agctaggcaa tggacttttt ttttttttta atctgtaccc 900
attggcgttt ctaggttact ggtttcttca gcttcaagtc tgggatatat tgggcaaaaa 960

```



```

ggaaacccag ggaacttacc accatgtcat ttctagccac cttgcttttt ctteccccacc 1020
cttcaatggt ttgttatggt tgctttaatg taatgtccag agtttttagt tgtactgagc 1080
agtaaaacag tgaaaagtat gtctatttca tttttcctgg aatccagtag ctgagtagta 1140
atagtctttt gtgatagtgt ccctaatacc cagcagttct agtttggtgt tgagttatgt 1200
tgtggagaat gtattttggt ttcttttgta ataaaataga aatttggtgt gaattcctta 1260
taatacttat gcttgaagac agtcatcagt caatgtgtta tttttctctt gttagatcat 1320
gcattacagc tataaatttt ttcatgtttt ccatgcctat agttattttt atgtgcaccc 1380
tccccatttt catatctatg ttgaaatatg caaaccaaaa ttaatacat ttttaaagg 1439

```

&lt;210&gt; 285

&lt;211&gt; 1195

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 285

```

gtttttttga agcatagcat atatatttat tttataaaat agaaaaaaa ttaaagtata 60
ttgattgttc tttaacacatt ttgattacac tgaatttggt aatttaatat tagttcaaat 120
aaacattggt atttaaaaaa tgctgagtag acgattaagc tgaattttgt ttccatcag 180
aaaaagaact tcaggagtag ataatgggtc acagggtgct cccatccaaa acactaggtc 240
ttcatctttt gtttcttaga ccactcaggt gcttcttttt tagtctgttt aaaaaagaa 300
aaagaaaatc caataaaatg cttacaagga ggacaagaga ggcaactcag agaactatat 360
acattgaggt ttttttatgt aagctatact aaaaaattgc ttttcttaac tcagaaagga 420
tacttaaggg cgaagacttt gtcttttgcc ataaataatc tcccacctgg taggtatatg 480
atagaaaaaa ctgtgttttc ttgctcaaag cctatactta agattttctg gggatgcaat 540
tattttacga attgatttta ttttcaaaga gaattataaa aaatcaagg acatgacttc 600
ttttcagttg tctcatctat atagataaca gatattcatt cactcaatag atattttatta 660
aataaatact gtatccaaat tattgtgttt tagatcttat gaatttccaa gtattttacca 720
gagtacttct tgggtttatt actcaatcat ttcagcctaa aaggcgacag gctgtacaga 780
atagaaagaa aaaggcaggg gaggtgaatt acagaataaa acattcagaa cttcactgat 840
tcagtcacaa gttcctattt tggctggggc cgggtggctca tgcctgtaac cccaggactt 900
tggggaggtt aggtgggagg actgcttgag cccaggaggt cgagactagc ctgggcaaca 960
tagtgagacc ccatctccac gaaaagaaaa aacaagttag ccaggcatgg tggcatgcac 1020
ctgtagtctc agttaacacg ggagatggag gtgagaagat cacttgacga tgggcgagg 1080
ggcccatgcc tgtaatacca gtactttggg aggccaaagga cagtggatcn cttgaggtca 1140
ggagtttgag atcagcctgg ccaacatggt gaaacctgt ttctactaaa aatac 1195

```

&lt;210&gt; 286

&lt;211&gt; 1601

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 286

```

gagcatgtgt ctgagggtcac actctctgcc cactcacctc cttggctgac atcggttgtg 60
tttgggtgctg acactctgat cccgaagcca gggagcccca aggggctgca tgaccctggg 120
gtgccccaca cagttcagcc ctgctgggca gggacgccag tactactgta actgcagcag 180
gagctgcccc gctgccttc tggccccacg cccacaggcg tagtcacatc tttgtactgt 240
actccccgtc ctccactggg gcaacctcag agccactaa gctgaaggcc cctgggggga 300
gggggaagca tggctcttat catctgccct atcttgcccc ttctgtgga gtgggcagaa 360
gggctcccg gacctcaga gctcccagg ctgagcagcc aaaggccag ctgggcctcc 420
aggaccagcg cgagcccctg cccacacctc cctgccaca tgtgccctgc tttgtgacct 480
ctgttgacct tctggaagc agccccatta cctgagaat gcgagggcc tggcccacct 540
cgccctgtgt ttccaggcct gcacgtctgg tcttcagct gcacatgga ctgcagggca 600
ggctggcggg gggccttcag atctcagatg agactgcacc ccttcgacca cctactggg 660
cacctgcctc cagccctga gaactccatc ttccctagt tctgccagg agccctgag 720
aaccocatct tcccttggt ctcttgcccc ctccctgct ggggctcctt cctggcactg 780
aggagggggc ctccaatgc tgtgaggcag cggggaggga ccgtgcaccc gtggctatca 840
gagccctcc gctgtccac cctgggctg ggacacgggc ctgggggagc tgtgtgtctg 900
ctggtcatgt gctggtgcag ttggggagga tcagctgtct cgggtgattc tgagactcac 960
tgtgggcgga gaggtctcac tctgctatc aggataaagt ttattttatt ttctacacat 1020
ttgccaggtc aggcattttg ctagtgaagc gtagtcccc aactctccct gccatggagg 1080
attctttttt ttaagctttg ggtgcttttt taatactttt ttttttaatg tgggggagga 1140
gcttgcctg acgtcacctt cctctccct gactcctgtc ctgagagcgt gtgggtgccg 1200
cctctgcccc tgccatcccc tgaaacgtgg ggaatggggg cccaggaca gcacaggac 1260
ttttgagtc ggctgccagc aatggttcca actcggaggc agcgcctctt ggtccccatt 1320

```

```

tctgtatagc aggcgtgtgt gtgtgtgtcg aggtttttta ttttttgctt aatcaaaactc 1380
cattcccaaa tgcactccat ctctggctct gagggcgctc cctcctctca gccgggcagc 1440
ctggcctctc ctgccagct gcggtcccag catcccccg ggccaggggn caggccccgc 1500
gggggggggt tttatgtttt gtttcaaaca gaaaacacaa ccttattttt ctttacaaaa 1560
gcaaaaaagg aaacaaaaaa agatacagcc tttgaatgat g 1601

```

&lt;210&gt; 287

&lt;211&gt; 931

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 287

```

ggcttttttt tcaatataac attttctttt gaaatagttt aagattgaca agcagttaca 60
aagtggccca ggctatggca tacccttcac tcagcttccc caattccatc gttaattttt 120
tgtatatgaa aaagtgaatg gatcactttc attgtttcca aatcttctga aaagcacaga 180
aactaacact tgtgcagtac gcacaccaat ggctgcaag gtggctctgt tgcaagactc 240
ttgatgaagc ttggggaaga cgtcatcaaa ctctggactt gaatgttaaa cctgctggca 300
gcctgccttc tcacagtatg gtcttcgtca tgggtgcca caaaacttgg cctgttttaa 360
aaagaaaaat agctcagcca atctttgtga tgaaggtttt gaatgcttaa ctgaattcaa 420
ttaggacagg aaaaaggaat tgcctttaca tgtgcagaat aaaaaaatct gtttttattt 480
tttttccaaa gagctcactt ttctcaaatg agaaaatgaa gttaatttta gtataagaaa 540
gatcaattgt aataaagaaa acttaaaagg ctttgtgtca agacggatta tattcaaaag 600
caatatttag gtgatgggtt aagagaacag ctggcacaat taaggcctga atgtgcacc 660
tgtggttgag aagaaaatga agagcactta atcatatgga cgtcgtatat tttcaagac 720
ataaaacctc taatgttgct ttccagac caaggttggg gaaaaagctt ggagactgtt 780
ttattacatt gggctttctg cccagtttta atcaccatta gggaaatagg gctctgacca 840
ggatactata tttcactttc aggatggcta gtggcaagta gcattgtatt tctaaatta 900
cagcctgaat tatacgtata gcagaatgat g 931

```

&lt;210&gt; 288

&lt;211&gt; 1574

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 288

```

attttttatt taatttcta ttttcacata agttatatatt aaggaggagg ggaatttttt 60
ttaaacaagc ttaggtcctt tcccagctg cattttctaa gttgggtcat cgtgtcggct 120
ggttgtctga cgagcatcgt tacaacacc atgatgaggg gtttggggtt ttattttgat 180
gtcttttctt ttggtcggaa gtgagtgaag gagccaggtc gccctgaagg ttttccaaag 240
ggcttggctc cagagccacc tggcagactg ccctggccc tgctgtcggg ccccaggccg 300
ttgtcctgct ctgaccacag agttttaatg tttggtttct acttctttta aactggacaa 360
caaatccagc atttcaagtg ccagaagtat aactttctaa ggagagaagg gttgtcacat 420
tataaaatct ttaggaaaat gtgaactgga aaacgcttcg gtcagtttta gtgacatagc 480
ctgtgatgat gggctcgggt actattattg cggaccgtgg taccagttt taggaatgtg 540
gagaaaggaa ttctgttgat tccgttgagg aatctgtagc gtatgcattc gttctgttaa 600
gagcaaatct aggagaagtg cttcagctgc ccagtgcgc gtggggagtg ttttaacgga 660
tcgtgtcgca ggagagcaca gccagcgtt ggggcccggg ccgctggcgc ccgacgtcgg 720
aagcatacag gtatactatg caagtgtatt ctgccacaac aaccactgtc ttttttacct 780
ttttttgaac aagaatatat ccatcctgcc taacctgag ttttggagca ccacagttgt 840
cctgggagtt ggttgcactt ttagccatc tgactcctgt tttaaacggg gtctgtcttg 900
ctaaacacta caggtaggtg gtctttgaag tccactgggt gggaatgtca agacaagata 960
cttatcccat gacatctgat gcatgtgcag cagtggggag ttctcgattg atctctgaat 1020
gtgatcgacg ccccgcaagg acaagcttaa aatgtctgcg gtctgccctt ttgacgagg 1080
actcgctcac tctgtcattg ggagctgtca gctgcgactg caggttctct aggaggcatt 1140
ccagaataga gtggcacact gtgtctgcag ttctcgatga ccgaaagtta tcaaaaatat 1200
ttaaaatatt taaattgtga cctattgata aagaatattt ataaaaactg atctgtaggc 1260
ctgtactaat ctctccgcat tagcaatatt gactgtacac ccacattaag gaaaccactc 1320
cgggtctggc agtgcgtgtc ccgtgggggt tgcattttta aactcgattc atagacacag 1380
gtcccatgtt ccatttccgt catggtgaag caaatgaatt ggctggcta ccactgtgg 1440
cgctgtctac aggtttgaca aaaagatct atgtttcgat ttttttgtgt gtggacaaca 1500
atatggaagc taaaattgac atatttttat gtaaagtttt tctattcttt gatttttaat 1560
aaactttgga aacc 1574

```

&lt;210&gt; 289

&lt;211&gt; 1685

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 289

```

cgacgagtg aactccatct caaaaatata tatatatatc aattaccaac taaaaacata 60
actccagttt ggcagtttgc atattataag gagataaatg ttaaaacata cttgactact 120
ttcagaaatg ttctcctggg acttttttgc tttctacatt cagataaaaa gatttgcattg 180
cacctggcta acgccaaggg aacttcattt tttcttcac tattatgcac tttcagggtta 240
tagtccttct cagttctttt aatttttggt atttaacatc tttaatagca cagcaaacat 300
cttttcagaa attttcagtt aaagcctttg aattacttat ctttgattta atttacagcc 360
agcattttgc cacgttctaa ataataatga gctcaactga ttcatacgtt ttaatgacca 420
ttctagcaaa ggcctacaag tgggtgtgga atcagggaaa ggctgcctct ttggtatctc 480
aactgggtatt gattattgct atcaactatt tggggagaaa aaatcaaaat gaagccctgt 540
caaatttttag aagtactatc tttggtcctt caaacacttt gtgatgacac ctttaagaaa 600
ataaagttag agttcaggtc ttgccattgc cattacagac aaattaggag acttggttta 660
cctgggaaca aatttacttg aatattcagt acctgaaact atgccaaacc aaagagcagc 720
tgacgtacat tcgttatttt aaatgaacaa gtttacaag tttattttca tctatacgtt 780
aggatgattt ttttaaaact ttttacatat tagtgggtat gatccaatgt gtcattgagt 840
aatttaactg taaggtgggt taaatcaaat atgcaatgtt tacttgaatt gtatttctat 900
tagcagattt tgactatggt tacaggacgg tttaaattaa ggattatcag gcatgtgaga 960
tctttcagtt atctttaaag tagatgtata ttaagggcct agatttagga tctacatat 1020
ctgggcattg aataggcagt aacttacaaa taagttttgc ttacctttg tcttagggac 1080
tagcactgct atcaatggaa agtattttta actaatctgt tattaagaaa gtcattttt 1140
tgcaatttcag ccaaaataaa gaccgcctgt aataatctgt tagaaacaga taatacatgt 1200
ctgaaatcca tgtttcatal gatctaaact gtattttcca atttaattaa aaaatgtaat 1260
gtagattcag aaaggttcat atttttctaa tgacttcatt ctatattatt ttgttaggtt 1320
gcataaagaa gcaaggaatt gtacttgtat taaaagatga agaaagctat taggtatatt 1380
tgtacatgac tgcaaatgag tctatgcccg tttaaaagaa aagatggaca ctatttttaa 1440
gtgagcttta atatgctttt atataaacia atttgaagta cagtttagtt tgggtgtggt 1500
tacctaacia gtaccataag ccttgtgttt gttcttatt gtataatcct agcctgtgac 1560
ttaatgttga tgctttgctt tgtcttttgg ctggcctaac ctacattgac atgtacacag 1620
aacattttta aacttttttt ttcaaaagtc ataatagaatt actttattaa taaacaaagt 1680
cttgt 1685

```

&lt;210&gt; 290

&lt;211&gt; 1545

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 290

```

ctcatagaat tctgtcactc tgtgtgtgtg ggaaggaacc agacatacac ttcaaaactt 60
gaaaagttaa aggtattttt tottcattat gttattttat attttaatgg cttttctctg 120
ctagtgtctt taggtcttaa taatcagact actaaagcaa agttaaatat gcatgtagtt 180
ttcaaattaa cattcaaagg ccaaggaaaa taaatatata ctatatattt gaggttatga 240
taaattttaa agttaagtct atgtggaagg aaaaatggaa attccaggaa gataaaacag 300
cagaggtact gctgcctca ttggacacct cttttacaaa cactttgtgt agcttctatg 360
ggaacacatt gttcattttt ttttctcttc tctgaatctt ctattcacta tccctttctg 420
cattcctcaa tgtctacact ctctctacta gagagtattg tcgatgtcag agtatatggt 480
agacatttta tgcatttatg gctcttttat atttttacag tttttttaaa ctgtattccc 540
actgtatttg cataattagg gtaaaaagga tgtaatgagt tagtagcaac tcattacagc 600
aactagcatg ggtccttctt attgggcaac taaatagtgt taccctaaat taacagctgt 660
ccacatagaa cacttaaacg ggattgaatg gctgagaagg ggaggctagc tatcaggctg 720
tgtgttttct tttctccaaa gctgccgatt ggtgactgaa tgcagctttg gaccatgcc 780
tgacactgca taaagggctc tttggagcca gctctactct aaacagcgtg ctccgctttt 840
gttttctcct tcactcctaa catatacctg tctcctctcc catgttacct aaggcaaaga 900
gagttgatag gattatagta tcgttaaggc aacttaactt ttctcaccat ttttaataaa 960
attactatta aaaatccaca ggaagaaagt ctatgaaatt tgcagtttac tttttaatca 1020
gatattaaat ttcacttcat tacttcacaa ttttaatttt tcagtgtctc taaaagagag 1080
ggattaaaag aggagaaaaa atgcaattga cattaattta gttttatttg ttttagcagg 1140
ttttttaatt atgtattatt taaagatttt atcaactatt ttaataactc actaaagatg 1200
tgcatacata tcttcatagt tcatatgatg aaactgaggt taacagaaaa tgtgatagat 1260
gttcaagttc agtagcttga tctgttctct ttctgctctt gggtttgttt gttgtttgt 1320
ttgagagggg gtctccctct gtcgccagg ctggagtga gtcattgcgat ctgggctcac 1380

```

tgcaagctcc gctcccagg ttcacgccat tctcccgcct cagcctccca gctacttggg 1440  
 aggctgaggt aggagagtcg cttgtatttg agaggtcaag gttgcagtga gccatgatca 1500  
 tgccactaca ctcaagcctg ggcatcagaa acagacccta tctct 1545

<210> 291

<211> 1936

<212> DNA

<213> Homo sapiens

<400> 291

ataaataata gcattgttaa agatagttat taccaaaaaa agagagttat tacaataaaa 60  
 tatgtctctt tatttttaa aatgaaatct taattcattt actctatttg atgataaaact 120  
 ataaattcat tgaaaatgtg aattctatta tgggtagcct ttttaccat tataaggaaa 180  
 atttacagca gtgaacatga acattcactt agcttctca gtctctccat cttaaagatc 240  
 atttatcaga ggaggttcag ctttttttgc agcataactt ttcagagtc tgtattacta 300  
 atggataagt caaatccatc ctgcacttct acagttttaga aagtatctgg actcagaata 360  
 aatgtaatat ttatacttgt ttccagaatg ttattttaca ttttatgttc aataagaaca 420  
 ctttttaaaa gacgtatatt caacataaaa tcagctatca gacttcagat tagactttat 480  
 ttatgtgggt ctataataat tgtataaaca agaggaaaac actatataag tataggcctg 540  
 gaaatcacag acgagtaagg acaaaacata agaaacaggg catcacatcc acagataagt 600  
 aaggcagaga aatactataa ggataaaca agtcaagtcc ataaagcaat aatccctcag 660  
 aaggaaaagtc cttacttttc acatattaat atttagtaat ttttctgtct tctaaaagt 720  
 agagtatcac accctaaatg aacactgtct actaagagac atcattccat ttccacaaat 780  
 gaagatttta ttccaagaaa cgagtttact gattggagca tagggcttgt tgttattttt 840  
 attcaagctt ttagtaatag ccttgaattt attatttttc ttataggctt tttgttaaaa 900  
 tagtgaagga acaaatgtta aagggttaaga taatttccct gcaaaaaggac acagaaggca 960  
 gtcttaagaa gatgaatgga tgagagaagg gagagaataa aatgcaataa cgagccagca 1020  
 tttactatgt attttctcct cacctgtctc tccatattta ggtcacttac cagtttctgt 1080  
 gcccttttgg agcttttgtt gagggcttca ttctcaccct gtatttcttt agccctaaat 1140  
 tgacactctc tccaaaaatc cattccattg tctgtggacc aagatgttct atgtaattca 1200  
 gaagcagaac tcttggctaa agggctagtg tggccttcag aaaccattca attattttct 1260  
 ccctacacct ttgtcagttt gaaaccagtg aggaaaaaag gtatgttgat aagaaacct 1320  
 tattgctagg tagaatttgt actgttttct ttggtagcag ttttgaaata ttctgtacag 1380  
 tacgttccta ttgtttaata ataaattcaa aaatatttct aaaaccttaa aaccaactat 1440  
 gccatgcatt aagataaaca aatatgatgt tctttgacgt aaatcaacgt gatgattctt 1500  
 tcacnngnaa acacatttta gtgtttctgg ttgtcattt ttgttgtgt tgttgttgtt 1560  
 gttatttact ctataccctt tagcaaaata cagtttttaa tttttattgt tttttgtagt 1620  
 ttcccatctt taagactttt cttatttttc tgagaaagaa agccttttct atatatata 1680  
 atattggatt tctaaggttg gtggtttgag ccttgattag acttttgat tgctaagcca 1740  
 gacaggcagt ctgtacattg atggccatca caatgcagct ttggtttaat ttaattcggg 1800  
 cctgctgctg agttatgcac agacttttgg ttgacaaaaa taaattttta aggggtttct 1860  
 tctgtttgac ttttgtgttc attttttctc tttatgtatt anatttttac ctttattaaa 1920  
 taaatgttta aatgat 1936

<210> 292

<211> 1635

<212> DNA

<213> Homo sapiens

<400> 292

ttattattaa agattctttc agtgtaaatc tttttctacc attgtatttg cttcagcaaa 60  
 atcattttgt ggttgagtg ggatgaaaag cataatgtac gaaggagtga gtcctaataag 120  
 gaagccgttc tccaagtaaa gaccacttgt tcccttttgt tcaggggtgc atgccagagc 180  
 ttctctcct ctgcaaacat tgtctcgtt taccttcccc agcaagcggc tttcactctc 240  
 ccggatccat ttgttcaatg gagagtatat tttaaaagcc tgccttagc ttactgggtc 300  
 ctgccttgta acttcagctt actggttgga ccagataatg ttttaccaaa aggaaaggg 360  
 gtgtgcttgc aacataattg cctgggggaa aggtagcaga agtcaccccg ccactgtacc 420  
 ctggcagggc caccgtgggt gcattctgtg ccagccttgc agccaccaga gcgccagtg 480  
 gagggcgcca gctgncagct gatgctctga tggcgggtggc attttctgtc tttgctgggt 540  
 cactgtgcca ttttccccag gataacataa agattataag gaaccaatag tccagttaaa 600  
 taaaaatgag tttttcttga aagtccctta ggttcttata taaaagcact cttctctgtc 660  
 ttgggtttgg cacatctcca ttcttaatt ccactgaatt agcagcttcc taaatatgtc 720  
 acgtttctta tcacaagcct acatacgttg tttttctgc acaaagcaaa taagaacaat 780  
 cgcttgatta tttgaagaga aaaagttaag ttgacctcag gcagctgaaa gtggcatctt 840

```

ctgtaggaac cccgattaac catcaggggg cgctcagact ttgttaaatt actggtaggc 900
ctttaaaacc taaaattagt gtttacagag atttggtggc atagtcattg ggattttttc 960
tttctggatt attttttgcc ttctgttttt cagaaacata tgtctgtttt gaggaacggt 1020
caagctgaaa ttgtcccttt agaaattgta atactgattt ccactagcag tcaaaaatta 1080
ttacaaattt tagaatttgg agtctaaaga ctatgtctta taataaatta gctattttca 1140
gccttctaata aagactccag aactggaagg atacttcttg ctgccgggag ccattcctcc 1200
ttatcctgga catcatagac agtgctcctg gcaggaccct ctgagtcctca ttgccacact 1260
caattggtga ggcctcagag tcacaataac ttgggtatat ttgttaattg gccatggcta 1320
ttttttcttt ttttaaaaaa atgatatgac aggccaggcg cagtggctca tgcctgtaat 1380
cccagcactt tgggaggccg aggtaggcag atcacttgag gtcaggagtt caagaccagc 1440
ctggccaaca tgggtgaatat ccctatcttt actaaaaata caaaaaaat tagccagggt 1500
tgggtggtgt cgctgtggt cccagctact tgggaggatg aggcaggaga atcgcataaa 1560
cctgggaggc agaacttgca gtgagctgaa attgcaccaa tgcactcatc tgggcaattg 1620
agcaagactc tgttt                                     1635

```

&lt;210&gt; 293

&lt;211&gt; 1011

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 293

```

ctatagtaga ttagatcata tgatgattct aaatcgatgt ttcactttct agctggtgcc 60
gacaagaaag ccgaggctgg ggctgggtca gcaacogaat tccagtttgt gagtatcttc 120
ctatttggtt tccatgagcc atcacttggt ctggcctcag tctggttgct ctgcaagttg 180
tggggatgtc atatagtatg ggtgggtcct gtcaaccagt tccctcctcc cacttttttc 240
caaattccaa attttacatt gagttgtagc atgcaaactt ttgtaaatac ataaattact 300
gaaatgagtc tcagaaatca gtacatgtgg cctactagta ttttctgttt cattaatgct 360
tgacattgaa ctaaacactg gaaggtgggt gggcttaaga accaagatgg tatgaaatca 420
aatcctccat cttttttcag ttgatgtaat gttaggtagg ttccctctg cctcagtttc 480
tccatctata aaataagggt ataattacag ctactaagggt agttgtgaga ttagttaatc 540
caggcatagt actggcatat catttttctc ctatggcagg tccctcatagc acacgattgc 600
tctcagataa tgtcatttgt aaaaagggaag catgtacagt agaaaagggt caatcctggt 660
gctggatgct ttcataggag tatgtatgaa cacactctgg gtgggtggcc atactccac 720
tttaccaatg aagaaatggg cctagatgtt agatattggc ccacatccag taaggggcag 780
tgctgggatt tatagcctgt actcagctct ctcccagctg tttacatttg ggggcctctg 840
gagttataat gaggcctgaa agtttagcaa acctccaaag atcaaaccag agtgccgctc 900
atgctgatgt gatgtgcttt ctcttacaga gaggcggatt tggctcgtgga cgtggtcagc 960
cacctcagta aaattggaga ggattctttt gcattgaata aacttacagc c 1011

```

&lt;210&gt; 294

&lt;211&gt; 1175

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 294

```

catgaaccaa ggcagtggaa ccaaacttcc actcattata ttcttgtttt gttttgtttt 60
tgagacagtc tcgctctgtc gccagggtg gagtgacgtg gcgcgatctc actcgtgca 120
gcctccacct ccaggttca ggcgattctc atgcctcagt ctctgggta gctgggattg 180
caggtagctg ccactacccc cggtgatatt ttgtattttt ggtggagacg gggtttctact 240
gtgttggtgca ggctggtcct gaaccctga cctcaggtga tccgcctgcc tccgcctccc 300
aaagtgtgtg gattatagggt cagatccacc gtaccctgcc attttgtttt atttgaagag 360
actctcactc tgttaccag cctggagcgc agtggcacag tcatgctcac tgcagcctcg 420
acctcccagg ctcaagcaat ccttctacct cagcctocca agtagctggg actgcagatg 480
cacactacca tgtgcccagc taattttttg tagagacgct gtcttaccgt gttgccagg 540
ctgttcttga actcctcagc tcaaagcagt ccacctgcct tggcctccca gagtgcgtgg 600
atcacaggca tctcattgta ttttttactg ccactctact acagttaaaa aaaaaatgct 660
agtttctact gagtgcctt aatgaagcag caaaaattat tattagcttt attaatctt 720
tattaaatct cagttcttaa acacatgctt tttaatctgt gtgatgaaat ggaatatatg 780
cataaagttt gctgcaaaat gaagactgat gattgtcttg agggaaaaa cttatgcaat 840
ggcttgtgtg ccaaattagc cacttattca tattactctt tttttgcttg aaagaatgac 900
tgatagacaa gccgtgatta ttcagatttg catatttgca gaccttttct caaaaatgaa 960
caaggctatc ttgtcgctta aagggaagctg gtagtatttg ttgcaaatga taacatgact 1020
tgttggcaag tgaaaattag aaatttgga aatttgctgg tgcagtagct cacacctgtg 1080
atcccatcac tttgggaggc caaggcagga ggattgcttg agcccatgan ttcaagactg 1140

```

gcctgggcaa catggcgaga ccctgtctct atatt

1175

<210> 295

<211> 1576

<212> DNA

<213> Homo sapiens

<400> 295

```

ctactgacct caggtgatcc gccactttg gcctcccgaa agtgctggga ttacagtcac 60
gagccacccat gccagccta tttattttctg attctttaag ggtgactgga cgtgttgatc 120
agcgctcgct gggatttggc tgacgtggcc ccagccccc ctcctcccc accccacaat 180
ggcagaagaa actggacaga gtaaattagc tgcagccaag aaaaagttca aagaatattg 240
gcagagaaac cgccctggtg ttccagcagc agcgaagagg aacacgaaag caaatggcag 300
tagccctgag acggccgctt ctggtggttg ccactcatct gaggctgtga gtcttgccctg 360
gacaggcttt tggggacagg gggcccaagg agcagtagag ggcaatcgtt aagattgttg 420
atggactgtt gggtagtgtt gaaggattct ggatttggcc gggcacagtg gctcacgcct 480
gtaatcccca cacttcggga gaccgaggca ggtggatctc ctaacctggt gatccgcccc 540
cctcggcctc ccaaagtatt gggattaccc gcgtgagcca ccgcgcccgg ctgcaaataa 600
tctttctttt tttctgagac agagtctcgc tctgttgccc aggctggagt gcagtgcacg 660
atctcggctc acggcacgct ccgcctcccc ggttcacgac attctcctgc ctcagcttcc 720
cgagtacgtg ggactacagg ggccgccacc acgcccggct aactttttgt gtttttagta 780
gagacggggt ttaccctgtg tagccaggat ggtctcgatc tcttgacctt gtgactgtcc 840
cgccctcgcc tcccaaagtg ctgggattac aggcgtgagc accgcgcccg gcggcgaaac 900
acgatattgt actaacatct taattttgtt ataaaatctc acaaaccccc tgacatagtc 960
tcagagatct gtagggccga ggttacattt ggagaaccgg tactctaggg ccaaatccat 1020
tcttcttgcc ctggctcact tgtccccccc accgcccgcg gctggagcca ctgcctagtt 1080
cttcagccct agatggtgct cgccagacct cctctcaatg ctcatcacac acagggctat 1140
tcttttctc caatgaacca aacgcctccc gccacctcc aggtcccagt cctctgttcc 1200
ctttgctggt tccacccttg cctccctgg gtggcagacg aggtcggcct cgtcattccc 1260
cgcagaccgc cgcgcgtccc tctgtgctgg ttaccacag ttgtatttaa gtgactgtgt 1320
gagtcgtcgt taaatgcctg tctccccgcg gatcatgggc tcctcgagga cagggactgg 1380
cctgtctgtc cactgctgta accccgcgcc ggcataggga cctaaggccc actggagggc 1440
gctcatcaag tagctgctgg atgttgacga aggaagcggc ggcgcagctc agggatctcc 1500
gagtcaggac ggtcgccag acccacgggg taacgggtct aatcgtgtag gaataaagct 1560
gtattccagt gcttcc 1576

```

<210> 296

<211> 1151

<212> DNA

<213> Homo sapiens

<400> 296

```

aactcaccgt acagagccca ctgggggggc atgctgtctc aaccacataa tgcacactat 60
aatactgaat ttctcctatg ggtgatatgg atgactaaca ccaccttctc ttttgatcct 120
ttcagtttca ctttgaaaaa tcttcacgta cataaaattt gccataatag tacagtgaac 180
actcatgtac acttaccttg attcatcagt tgttgacagt ttaccatact agctttatat 240
atttctcgaa aaatgtcatt ttttcttcta ttttccctt gttgccttcc tcttcccc 300
ctcccttctc tcttcttctc ctcccttctc tctttacctt tttctttctc tcattttttt 360
ctattttatcc tatottattt ttagaaccac ttacaaagta gtttcagaag cttaccaaac 420
tcattaacta acatacttta acgtgtattt cacctaagaa caaacatttc agatcactga 480
tcagacagtt caatgatgac ctacagcatat ttaccaattt ttactaattg tttcattaat 540
gtagctccct cccctcacat attacattta tccattttctc tttagtatac tttaatntag 600
aattgtttac cagctgtttt gtgtctttca tggcattgat atttttaaaa agtccagggt 660
agttgttttg cagaatatgc ttcaattcag atttttctgt ttatctattc ttaaaacacc 720
gcagtgttctc acttatgagt gggaaactgaa caatgagaac tcattgacac aggaagggga 780
acaacacaca tttaggcctg gttgtggggg gacttggggg agggagagca tcaggaaaaa 840
tagctaattg atgctgggct taatacctag atgatgggtt gatagggtgca gcaaaccacc 900
atggcacgtg tttacccgtg taacaaacct gcacatcctg cacatggacc cgggaactta 960
aaataaaaata aaccaataaa atcctaaaaa agtacgaca gtagggcagg cgtggtggct 1020
caagcctgtc atcccagcta cttggggagg tgaggcaaga gaatgggtgtg aaccaggag 1080
gcggagcttg cagtgagccg agatagcacc actgcgactc cagcccaggc gacagagcga 1140
gactccgtct g 1151

```

<210> 297

<211> 1020  
 <212> DNA  
 <213> Homo sapiens

<400> 297  
 ccgctttttt tttttaactc ctttttagtg tctgacatgg gcctggcatc caggaggcaa 60  
 tgggaatacg aagatgaatg aggccctgggc tcgtgcagtg aagtgaccc tctggatggg 120  
 cctgaaggct tttgaatgat gtaaaatttt gagtgacttt ttgagacggg agtaattgta 180  
 taaacacaag tttggccagt tgattctaatt gttttctact gcttaaaata tggaggtaaa 240  
 ttataaggct atagcgaatt gtgtttatag ggattggaaa tggcctatac atgtcagctc 300  
 tgtgttaaaa atgcttgtct tttgtcaacg aaaaccttac gtactacttc tcccacttct 360  
 ccctttttat gttggtagct gggaatgaaa tccagcaatc tctgaaccgg ctgattggaa 420  
 tttgtgccct gatcacattc tgaggctgct tgagggggga ttttctgag agcctaata 480  
 ctctgtcact taccgtgatt gattttggct ccacatctgt cctcctgcc acactgaatc 540  
 ccagacctga gccttctttt ctattcaaga ctatgaagca aacatcttct tcattctagt 600  
 gaaaacaaac aaaaattatc ctttgagcta cagctgcaaa aaattaagaa agaaaaacat 660  
 atccccctgg gccaggagta aggaagctct gatgtcagtc ctcttgaggg ggcttttcac 720  
 cacaggccct aaaggttctt tggctctcag ccaggcatgg tggctcacgc ctgtaatccc 780  
 aacactctgg gaagccaggg gggcggatct ctgagccca ggagttcgag tccggcctgg 840  
 gcaatgtggc agagccctgt ctctacaaaa atcagccagg tgtggtgttg cacacttgtg 900  
 gtcccagcta ctggggaggc tgagggtggga ggattacctg ggcccggaag gtcacggctg 960  
 cagtgaagca tgatcacgcc actgcacttc agcctgggtg acagagttag accttgtccc 1020

<210> 298  
 <211> 1849  
 <212> DNA  
 <213> Homo sapiens

<400> 298  
 tttttttttt tgagataaag tcttgctgtg tcaccagggc tgaagtgcag tgacatgac 60  
 ttggctcact gcaacctccg cctcctgggt tcaagcgatt ctctgtctc tgcctcctga 120  
 gtagtgggga ccacagggtgc ccgccaccaa gccagctga tttttgtatt tttagtagag 180  
 atgggttttg ccacgttgca tgccaccaat ttgaaggggg cctattcatg ttatatgatt 240  
 tatcatatgt ctgggggttca ggcaatttgg tcattctgtt acaattgctt aaaaatgttc 300  
 atgtgccttt tttttttcat ttcttctgcc tttcaatcca catcaagttt ccttctcata 360  
 aaatatctct tgttatgtct ctagggtcct gacctttgtc ttcacagagta acatctgctt 420  
 tcaactaagt gatctgcaag acacatctaa tcttggcttt gctcaatttc tgagttgggt 480  
 agatttcaaa agttttgaaa tgttttctgg gattttgcat gcattttttc atagggtgac 540  
 caacttttca gactagtctc tcaaagccta tttcacttat tcatgtagtg ggattaggac 600  
 cagcttgagt gctatgttca ggaactatga ggaggtcaca gccatcaaag gaggaggagt 660  
 gttttctccc accatgaccc tgaatgcagg ttcatttcta ggtaaaagt ttagataagt 720  
 aggttacatc ttctttttct tccctgttcc ctgtactccc tttcataact ccctggggct 780  
 ttccctccaa ctcttcgggtg ctcaagtgct cccacacagc acttaccatc ttattgtatg 840  
 cctgcatcca gaaacaattt aactctaaaa ctgtgtttca aaattacttg catcactgct 900  
 tcctcattcg ctgtgtgtgg ttgctctaca atctttggga aagcgaaagt ggaattaatt 960  
 gaccctactg gataactgac tgatttctatt atttaacta aaattctcag atataccaaa 1020  
 tgaaataatt ggcaaaagtga agtgaaaagta ttcaggcagg ttaaggagta ttttttgaa 1080  
 cagcaagacg tgaagtcatt tattaattta aagaacattt attgggcggc tttcatgaac 1140  
 taagctcttt gttaagcaga ggagatgaat gacactggat tacatgggct aaagagaaag 1200  
 aaaagccagc aattcaatag agtatgttaa gtactattgt aattcctgca ctttgggatg 1260  
 ccgaggtagg tggatcattt gaggtcagga gttcgagacc agcctggcca acatgatgaa 1320  
 acctcatctc tactaacaat acaaaaaatt ggccagggtg ggtggtaggt acctgtaac 1380  
 ccagctactc aggaggccga ggcaggagaa tcactttaac ccaggaggcg gagcttgcaa 1440  
 tgagccgaga tcatgtcatt gtactccagc ctgggcgaca gactgacact ccatttcaaa 1500  
 aaaaaaaaaa aaaagattat acaatgcggc atttggggga tcaggcttcc caggggaaagt 1560  
 gacagcacia atgagatgtg gaggcgtgag tcatggctat tttgtgtat ggtgcttata 1620  
 aatgtctctt ctaccttatg acttgcgcc tctgttgggt cagagggtca ctacgngag 1680  
 tacactaagc aattgcttag gctatttgtt tggaaactgta tcttgcctga gtgcgcgcg 1740  
 ttcccagtg tctgattccc ctggtttctga gtctcttctt gggaaactgtc acatttctta 1800  
 gagccgaccc acngggcatt tgggtgacca gctgtgtgct gcttgata 1849

<210> 299  
 <211> 1037  
 <212> DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 299

```

tccatcttca ctgatgtcag ctgttctttc aaactaactg aaagatgttg cattattcat 60
gtttaacaaa tgggttaaaa actccactga aactctttct ttaaaggact ttttctcaag 120
ttttacaagt tcacacattg attgtgtgtg tgtgtgtgtg tgtgtggtat aacaccttta 180
acagtgggtt tgacagcaaa atcataccac aatggaaaca tatccaaata tccattttca 240
aaatgctttt ttgacagcac aagttttcta gcagttgctt tcacactcat tgttgaaatg 300
ctctttggcc ttgaagggat agatgaaata tgttcataca aaaatatctg ccagataggg 360
gtgccacttc agccccctgt gatgacaaca aaaaaaagg tcagcatatt tggaaagacta 420
acattttgta aaagaaaaac gtgtttttta gttatcttta agttattcag gtctttcaaa 480
acataagaaa ccgcttgtgt tttacaaaag atacttagta acgactcctt agaactcctg 540
gtcaccacac agggacatca gacaagtctt ggccgcatg ttactccatg cattaaatat 600
gacaaaactt actatctttg tcttcctcag gttatatgca taggttttga tattttctct 660
ctgtgcccca tggatgatgt gtgcccata cttcagatac caaggtctct accagtgtag 720
accacttggg ggggcattag aaaaccttgg ccaggccaac cacagtggct cacacctgta 780
atcccagcac tttgagagac caaggtagaa ggatggcttg agcatgggaa ttcacgacca 840
gcctgggaat ctagggagat cttgtctcaa caaaaaaatt cagaaattag tcagccatgg 900
tggcgcatgc ttgtagtccc agctacttga aaggctaaga tgggaacatc acctgaacct 960
tggagatcaa ggctgtagtg agctatgata gtgccttgta ctacttcag cctggcaaaa 1020
gagtaagacc ctgtctc 1037

```

&lt;210&gt; 300

&lt;211&gt; 1424

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 300

```

gcagaaaata aacaaatcac tactgctgaa atcaggccca taagaacacc aaagatcctg 60
gctcataaaa gacgttttac cagtccttca accaaccagg aggaatccag ttttcaaaac 120
aactaatcag cattcttgac tgatcaagtg gcataagcca ctgccttggg taaaaaggca 180
agttgctttc ttagtaagga agtcccata ggtggccatt tcagtattcc tttacctaca 240
ctttgggctt tccttatcca tgattctggc catctctggt gtcccagggt gtccacatcc 300
cccctatagg attaacagat aatgctgagt accattctct ctacattgcc aacaaaagat 360
ttcagctttg gtaaaactta tatgaggtgg gggaggaagc gaacagtcaa tgtgcagagt 420
actacaaaga atatcaaaac ttgagaactt taagggatct atcacatctc atctccaaac 480
actttgacag acaggggaac ttcaaaccag aaagggcaca aggtcatatg gagtcattga 540
caaaaccact gctagagtcc aggccttccat gattcccagt ccagggtctc tatcattaaa 600
taacacagcc tcccttcttt cctgggagga actgcaggca tgccatcccc ctgccaagat 660
aatcacccct caagagcccc tctcctatc ccagtccctc ctacagcaca gctgagtgtg 720
agctcaaat agcaagtccc ggagcagggg gcatttcttg gaggggtgcc agtctgaggg 780
ttgctggtac cgaagaggag ggacaaagat ggagaagaag gtgacatccc acaaagggtt 840
tgggagaact gggctccttg ggcagtggca gtgagcctgc tgggctggat aaagacacat 900
gcagtggcat ctcccaaagc gcattgggga agcagaccag cagttggcac cacctctagc 960
agcaaaagga agggctgagc cttgatgggc aggggaagcct ggggcatctc cgagtccaag 1020
ttgggcctca ggggtgcctc ctggcagagt ggcaactggc cgcccgtgag gtggcaccag 1080
tgcccgagg gaggcccgag gacacagatg ctctgctctg cccgtgggat agcaccggca 1140
cccggcgaag cccagcccc cccgggaggt ggcaaccggc cccggcgaac gcccgcagc 1200
caggatgccc aaccgcctcg tgaggtggca ccgacgccc gtgaaggcca gacgaccagg 1260
atgccagcc cgcccgtgag gtggcacaa cgcccggcaa agggccgacg accaggatgc 1320
ccagcccgt cgtggagtgg caccgcggc tggcggagcc ccagcccgt cgtgaagtgg 1380
caccggcgcc cggcggaggc ccgcggctct caccagccgg atca 1424

```

&lt;210&gt; 301

&lt;211&gt; 2565

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 301

```

ttcctccagg acaagaaccc tgtcttgggt ccaaactttc ccaattataa ggtcacctt 60
tgcgcttgtt aaacctgctt ccaggtgctt ctctgaggt ttcctgattc agctagactg 120
gagtgaggac ctgacgaggt ggttggtttt tagtgttctc aggagtgtgg atgttttaat 180
aggtgttggg tctcatgtt aatcgacctg tgggtgtgtc acagtctttg tgtcacagat 240
gtcctgagaa aggaacaat ttgaggatga gtggagggga atttgtgtg tagagaaggc 300

```



```

cacagttaat atgtggggtg aatttctgaa gacctctcag ttcaaaactt gaataactca 360
agactcatcc tgacaaaagc cagtggatgt ttcttttgcc aaataaaata tacccttggt 420
gcaactggaa aatcttagct tataattaac ttgacagcct ttgaaattaa gccattcttg 480
ataaatcttg ggggaattaa caactttgtg cttaaaatga attttactaa tttttatgat 540
gttgaaattc aaatttacac ccaattaaaa gatataaaat gcggtatata tgattttttt 600
tttccactag aaaataaaga ttcccagttt agtcatcttt ttctgatcac cagacaagag 660
gtcagggaaa gataactgag aatccaaaat ttccgttgaa agtaaagaaa tcataatag 720
cacattctct ggtaggaaa gttactcagt aagtgaagac gccgaggtgg tctattttct 780
atacagttgg gccataagag aatttatcca atttccctct agcttagggg cctgaagtca 840
ggagttccct ttttcttaag gattagggac catgtttttc agggcctttt gaagttgtta 900
aagcattgtc aactggctca actacacaaa tgccatcatt tattatccac tgacaaaag 960
attaacttcc aaactctcat cctgacacta agggccacct attatctagc caaaactttac 1020
cttcttcaact tgttctcccc agtctccag cttagcctaa atgttctact gtcagtataa 1080
gcattttaac tttgtcttct gtgcttttgt tacattgttc tgagttttag tactcagtcc 1140
tctggactac ttgaagcttt ttatcagtct gtcagtcttt ttaaactctt gctcaaactc 1200
cactctgaga agctttttca tctcattgta gttcacaggg aagtctttct ctttagggct 1260
cattccctgc ataacgaata attgtgtagc tttttaaact gtaggcttat tctcaattt 1320
ctttaccttg ttttacattt tctngtctga cttctgctag agacatatgc ttctcggtat 1380
ttattccaca aaggctatcc caatgcctac tataaaatag cttctcaatg aaagtttgtt 1440
gactggttgc cagtcaacag aacactagaa aattgatctg agagtgggtg gttctagtaa 1500
atactctagt aaatattttt ctctactttt tttctaactt ttttcttac tctttacta 1560
tggaactctt ttttaattatt gcccttcata attattggcc cagttgaaac aactgttata 1620
gattcaaaaa tctcagaggt ggtaaagtac tacacttggc atcttccctt gagccgatgt 1680
atctatgtag ctaaaatgat gagattagag tggagctttc tcacctgggt ttgaggtgct 1740
gcagaaatgg tctgcttttc tagtgccttg aaaaaggatg agaagagagg tgcattccag 1800
aagacaaaag gtgtgtagta tcaggataag gggctttaaa tatcagatcc agagaacact 1860
gcacatgtag aaatgggctt ggccctgggtc agggcattga gattggttac ataactttt 1920
caaggattgg tgaatgagtt ggagtatgtg tagaaacctc caaagatgac agtttaactc 1980
catgtcataa ttttttagaca aataatgtat tttaaaactg ggtgcagttc ctaaagctgt 2040
tctaaaagtc aatgcaactg aatttggaaat gtaagcatag gacaacagat gggaaataag 2100
tacatgacct ctgtgggata aagtgaaggt taccaaagaa tgtcagtgtt taactaggaa 2160
caagcttggt ttggagaatt actagatatt atggaaaatt ttttctttt ctacatttga 2220
ttaactatag ctgaactata gcagatcata tgacttggca aaaatagaaa acttgataaa 2280
aatcttctag gccccacaat gtcaacatga acaaactttt gaaaagtaaa agtagacctg 2340
gttttctcag tatgtattat caaatatatg ttgaacataa aatttttgcc cctcagccag 2400
gttgtaatat tttccttttag tttatctctt taataatttt ttatgttaat ccattttatt 2460
ttgaaaaaat aatgagctag aggatccaaa gatgtaaatg aatctaaaag agagaattaa 2520
actggcataa agataaatat aattcaagca agatatgtta ttccc 2565

```

&lt;210&gt; 302

&lt;211&gt; 1643

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 302

```

cccagccctg agattcccag gtgtttccat tcaggggtca gcactgaaca cagaggactc 60
accatggagt tgggactgag ctggattttc cttttggcta ttttaaaagg tatccactgt 120
gaagtgcagc tggcgcaatc tgggggagggc ttggtgcggc ctggcagggtc cctcagactc 180
tcttgtgcag cctctgggtt cagtttttct gatcatgcgt tcagctgggt cgtcagactc 240
ccaggggaagg gcctggaatg ggtctctgggt ataagtcgga cggggacaac cgtcgcctac 300
gcggactctg tgaggggccc attcctcatt tccagagaca acgccaagaa ctccctgtat 360
ctgcaaatga acagtctgag cgcggaggac acggccatct attactgtac aaaagatctt 420
ccaggattaa actacggtct ggacgcattg ggccgaggga cctcggtcac cgtctcctca 480
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg 540
ggcacagcgg ccctgggctg cctggtcaag gactacttcc ccgaaccggg gacgggtgctg 600
tggaactcag gcgccctgac cagcggcggtg cacaccttcc cggctgtcct acagtctcctca 660
ggactctact ccctcagcag cgtggtgacc gtgccttcca gcagcttggg caccagacc 720
tacatctgca acgtgaataa caagcccagc aacaccaagg tggacaagag agttgagccc 780
aaattttgtg acaaaactca cacatgccca cgtgcccag cacctgaact ccttgggggg 840
accgtcagtc ttctcttctc ccccaaaacc naaggacacc ctcatgatct cccggacccc 900
tgaggtnaca tgcgtggtgg tggacgtgag ccnogaagac cctgaggtca agttcaantg 960
gtacgtggac ggcgtggagg tgcataatgc caagacaaaag ccgcgaggag agcagtacaa 1020
caagccgtac cgtgtggtca gcgtcctcat cgtcctgcac caggactggc tgaatggaaa 1080
ggagtacaag tgcaaggtct ccaacaaagc cctcccggcc ccnctcgaga aaaccatctc 1140

```

```

caaagccaaa gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggagga 1200
gatgaccaag aaccaggtca gcctgacctg cctgggtcaa ggctttttatc ccagcgaaat 1260
cgccgtggag tgggagagca atgggcaccc ggggaacaac tacaagacca cgcttccgt 1320
gctggactcc gacggctcct tcttctctta tagcaagctc accgtggaca agagcagggtg 1380
gcagcagggg aacgtcttct catgctccgt gatgcatgag gctctgcaca cccactacac 1440
gcagaagagc ctctccctgt ccccggttaa atgagtgcga cggccggcaa gcccccgctc 1500
ccccggctct cgcggtcgcc cggggatgct tggcccgctc cccgtctcca tacttcccag 1560
gccccagca tggaaataaa ccccccccc ctcccctggg aaaaaaaaa aaaaaaaaa 1620
aaaaaaaaaa aaaaaaaaa aat 1643

```

&lt;210&gt; 303

&lt;211&gt; 1634

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 303

```

cttagccctg gattccaagg cctatccact tgggtgatcag cactgagcac cgaggattca 60
ccatgaaact ggggctccac tgggttttcc ttgttgctat tttagaagggt gtccagtggt 120
agggtcagat ggtggagtct gggggaggcc tgggtcaagcc ggggggggtcc ctgagactct 180
cctgtgcagg ctctggattc atcttcagtg actatggcat gagttgggtc cgccggactc 240
cagggagggt actggagtgt ggtctcttcc attagtatga ctggtccgtt acatatataa 300
cgcagactca gtgaagggtc gattcaccat cccagagac aacgccaaaga gttcactgtc 360
tctgcaaattg aaaagcctga gagccgcgga ctcggtgtta tattactgcg cgaaattcag 420
tctcttagtt ccaactactg tcatcaaaa cccattcttc tactactggc ctatggagct 480
ctggggccaa gggaccacgg tcatcgtctc ctacgcctcc accaagggtc catcggtctt 540
ccccctggca cctcctctca agagcacctc tgggggcaca gggccctgg gctgcctggt 600
caaggactac ttccccgaac cgggtgacgt gtctgtggaac tcaggcgccc tgaccagcgg 660
cgtgcacacc ttcccggtg tctacagtc ctacaggactc tactccctca gcagcgtggt 720
gaccgtgccc tccagcagct tgggcaccca gacctacatc agcaacgtga atcacaagcc 780
cagcaacacc aaggtggaca agagagttga gcccacatct tgtgacaaaa ctcacacatg 840
cccaccgtgc ccagcacctg aactcctggg ggggaccgtc agtcttctc ttcccccaa 900
aaccgaagaa caacctcatg atctcccgga cccctgaggt cacatgcgtg gtggtggacg 960
tgagccacga agaccctgag gtcaagttca actggtacgt ggacggcgtg gaggtgcata 1020
atgccaaagc aaagccgcgg gaggagcagt acaacagcac gtaccgtgtg gtcagcgtcc 1080
tcaccgtcct gcaccaggac tggctgaatg gcaaggagta caagtgcagg gtctccaaca 1140
aagccctccc agcccccatc gagaaaacca tctccaaagc caaagggcag ccccgagaac 1200
cacaggtgta caccctgccc ccatcccggg aggagatgac caagaaccag gtcagcctga 1260
cctgcctggt caaaggcttc tatcccgcg acatcgccgt ggagtgggag agcaatgggc 1320
agccggagaa caactacaag accacgcctc cctgctgtga ctccgacggc tcttctcttc 1380
tctatagcaa gctcacctgt gacaagagca ggtggcagca ggggaacgtc ttctcatgct 1440
ccgtgatgca tgaggctctg cacaaccact acacgcagaa gagcctctcc ctgtccccgg 1500
gtaaatgagt gcgacggccg gcaagcccc gctccccggg ctctcgcggt cgcacgagga 1560
tgcttggcac gtaccccgct tacatacttc ccaggcaccc agcatggaaa taaagcacc 1620
accactgccc tggg 1634

```

&lt;210&gt; 304

&lt;211&gt; 1241

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 304

```

tgaagtctca ctatattgcc caggttggtg tgaactcct ggggtcaagt gatcatctca 60
ccttggcctc ccaaagtgt gagattacag gcatgtacca ctgtgccag ccttcatgtc 120
aatttaaaat tgcaaatctc cctggagggt gtggtcaaac cctcttgggg agaccaactg 180
aacatttgca gaggatacac aaactactcc gttaatgcag agttgtgttg gtctactctc 240
agtgtatagt ctcccctcta taaatggcac tgtcccagg gaaaagccga aagtgcatag 300
ggtaatatat tctaacttct ttaacatcct tatccggctt tctacttttc ataagtttg 360
gtaattggat cttttttcatc ttcttttaat gttgttactc aggatttcag acatgagact 420
gtaaagcaga aatgaagata actatagtga acatttttaa ctagagttta atgtaagcat 480
gataaaatgg aaaagattta agttttctta gactgtctct accaccactt gctgtatgac 540
cttgagcata ttacaaacct cttgagcctc agttttatca tctctaaaat ggattaaatg 600
aaatcagcca agctttaacc catttttagag accatagtgt tacatttcct ctctgttagc 660
agtatcataa ctacaggactg gctcattttc atttcaggac cattgtagca ctggtatata 720
atgtgtgtaa aaccctaattg gaaatgaatg gcaagctttt cgatgacctt actagctcat 780

```

```

acaaagctga aagacagagg tatttgatat tttgaattac aaaattatct atacatttta 840
tgtaggttga atgtgattca gttcaggaag gtatctcttc tcagttcaga ttttcatatt 900
taagaagtta attaccttat agtaaacatt acaatgtgaa agtctcttaa catataagtc 960
atttcagat aaactagccc cagtattttt ataaatttgt taaagcagaa aaagcagtag 1020
catttatttt tgagggtagt tacataattt acttctctta aatggttaga ttatgatttt 1080
aatgtggatc ataaatcctg tttatctcat tctgagcctt agatttcttc agtctgttag 1140
catctgcata tgaatatata tttatgctga attttaata tcaatttgta caatttgatt 1200
ttttatccat gcatttacga aaatcctttg aaccttagaa a 1241

```

&lt;210&gt; 305

&lt;211&gt; 1501

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 305

```

atttcattct ttcttataga ttccagttct ttgatgaaag tctctattcc acccatcaag 60
tctgtgtctg ataacaccaa tatctgggtc attagtggct cggttttgtt gtgtctgttt 120
tccccctcct cctgttttgt ggtgtgtttg atcacttatt gttgaatgct aaccattata 180
ataaatttta gtggctccag gaaacattat ctgaaaacaa tgtctgtctc aaggagggtt 240
ttaccatgct atctgataga cagagtggga agattttacc ttaatccaat ggtactgaac 300
tgactagagt ctatgttgca gtttttggaa ggcttcatct ccatctctgg tttgcccatc 360
tatctagagt gtggctctcc aaggattcca gctgagcgtc tgatgtgatt attaggcttc 420
ttttccttgg tgggtcctga actccaactt ttatctcatt aatatgacac tgccaaaacc 480
tgctgccttt catagccttt ctgcatagct taattcagca gatgcctcaa ggggaaagtg 540
ttccttttct gtgtctccct tctacatgat atctcgccc cttcagttcc agctgccttg 600
acaacctcag tctccatttc ttgtctctcc agctgaagac tctgtgact ttgtgcctc 660
ttagctatgg ccgtctgccc aaatgctcgg cctcttagct aaaatcagca cgtttcctga 720
aaggaaaagt agttcacaga gggccagctt gcctccttgt gtttttcttc ttttgagatt 780
atggcccttc aaatgtttgt taactgggaa gctttcaaaa aactttttta aaaaagtttt 840
ctgtgtttta ttcagccttt ccagttgttc ttggaatgag tgttggtctg cctcaagcag 900
aaaaaaaaat ctcagaattc ttttctcaga aaaaggattc tcagcagaga gtgattttat 960
acacggaatg ggattaaaca attcttggga aagctgggtg agccaacgag ggaacagtta 1020
cttttatcag tgtgcaattt ttttgcata atggtgcata acaactaact acaacatgct 1080
aatgccatc ttaataagc actcatttct aacacatctg tgggttggct ggaggtggct 1140
tgagctaggg taggcaacaa gagcaaaact ctgtctcaa aagaaaaaaa tccctgttt 1200
attctttttt tataatcgtt ttattgagat ataattcaca tatatgattc atccatttaa 1260
aatgtataat tcgatggtta ttggaatatt tacatttctg ttaattccc tcaattaatt 1320
tttaaatcaa ctgtcaact cgtataggcc atccctcagg gactttgttt attgttgaat 1380
taactctgta tagtacatct tcccaaacag caggagcaca gtagagtgtt ccactaattc 1440
ttgtctcctt ttatttccct catgatattt aaatcatttc ctttcaataa attaatgctc 1500
c 1501

```

&lt;210&gt; 306

&lt;211&gt; 1803

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 306

```

gccaatcttt ttttttccct taaagaacct tatgaaaact tgaaggaaa tgcagtaaag 60
gaaaaccatg gaaatggaac tggaggtcaa agacatgatt ttaagtcct ggttctctta 120
cttacttgct atgcgaactc tgggcctcat tatactactc atattggtag tgggccccag 180
gaaaaccacc ttgctggacc tggccctcca ggcccttgca aactgccttg gtataagggt 240
ttcttccctt gaccatcaga ttgttcccta aattagaact taaaagcctt cagttacaca 300
tgacatgatg caattttgtt aaaatgtagt taatcagaga tgaataaagt acaattagtt 360
tttagtgata tgatttgaaa ggactagggt aggttatata aaggatacga ggctgggagt 420
ggtggctcac acctgtaatc ctaccacttt gggaggccac ggcgggtgga tcgcttgagc 480
tcaggagtgc gagaccagcc tgggcaacat agtgaaactc tatctctaca aaaatacaaa 540
aactggccgg gtgtgggtggc ttacgcctgt actccctgct accctggggg gctgagacag 600
gaggatccct tgagcccagg aggtggagggt tgcagtgagc caagtcacat cattgcgtc 660
cagctgggtg accttgagac ctgtgcacaa aaaaaaaaaa aaaaaggata cgaaaagcta 720
caactatacc tacaagccc tatacagaga gaagcccttt gtccctctct ctacagctgc 780
ctgacaagcc attcagtc aaatgtgccc catgtgcctt caggctggaa catgctatcc 840
ctccactaag cagaagagac agccctagcc ctgcgtctca gagaagaaga taatgccac 900
ttctctctct ctgccctcag tgtatgtgtg ccaggccctg cctagagaca tgagggtctat 960

```

```

aaccctagct acccctttac tgatggctctg ccccttgcta aagattatca gaaggcagcc 1020
tgaaaagtgt gcttttggtt actcatctga taagtctatg ttctttgcat aagggtctcat 1080
tggggttagaa aaaaagaatg cactttgaga tcctccatta ggatagaaaa ttggtcttta 1140
gtatattaaa atagtactac acttaccac caatgttgta gtaagaggat gaagtaaaat 1200
aacagatatg aaagcatttt gtaaaactca aagtgtttta caaacataaa aggagttagac 1260
aggaagaaca agttcaagat atctatagta catcatgatt gctaaagtta ataacaatgt 1320
atcatatatt gcaaattgct gagagcagat tctcaccaca aaagaaatga taatgatgtg 1380
agaggatgca tatgtttgtc tgatttagcc attccacaag gtatcacatt atcaaaatat 1440
cgtattgtat accataaata tatacaattt tgtcaatcaa aaatatatca atataataaa 1500
aataaaaagga gaattgtata taaatgatta taagcaactg aacttcaata aaaatctggt 1560
tttctgtaca tggaagtctt ctctgtggaa gactccatat tataaagatg tcaattatcc 1620
ccaacctatc tatagattca atgcaactct gtttaaaatc ctagcagggtg ttggccgggc 1680
gttgtggctc atgctgttaa tcccagcact ctggggaggcc gaggcgggtg gatcacgagg 1740
tcaggagatc gagaccatcc tggctaacac agtgaaaccc cgtctctcat acaaatttag 1800
aaa 1803

```

&lt;210&gt; 307

&lt;211&gt; 1539

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 307

```

caactagtct ttatattctg aaatgggttg atgaattata atatttgta aaggagtgtg 60
gtgctttctg ttctagccct caacttggtt ttgtgtgggt atgtgataat atgctttaat 120
agtcatgaat ttaataaaag taccaggat agtgaataa ataataatt gaaacatgga 180
ttctgttaac tttattatcc atgctatat tctttattta ccaggcataa tttactagct 240
ttgggtttttg ttttgttttt gatagcccat atgctatttg ctttattata ccttttttaa 300
agtaagtcag agtttaggtt tctcatgatt aaattttagt attagaacag aatcttttaa 360
tgctagaaac caagtgtata agtgcataat tgttcttttt tttttttttt ttttttgaga 420
cagggtcttg ctctgtcgcc cagggtctgga gtgcagtggt gcgatcatga tcttgtotca 480
ctgcaacttc tgctgtctga gttcaagtga ttcttgtgcc tcagcctcct gagtagctgg 540
gattacaggt gcccgccact aagcctgact ggtttttgtg tttttaatag agatgggatt 600
tcaccatttt gtcaggctg gtcttgaaact cctgacctcg agtgatctgc tcgctgggc 660
ctcccaact gctgggatta caggcttgag ccaccgcccc tgactccaaa tgaatatttg 720
ttctaactct gctatggcga atgcagttgg tattgaggtc ttgtatagac ctgggtttta 780
ggatgtagca gaactggatt aatatcctgc atcaccattt attaacagca ttgctaatac 840
aagctatgtt tcctttctga gccttgtttt tctcatctta aaaaacagta atagattaat 900
ttgcgcatcc tagaatttta tgcaaaggga ataacatttt ttgtgtgcat tctttcagca 960
taattatctt gagattcaca cgtattgtat gtatcaatag ttcatgcaca tttttaagggt 1020
tagtcgtatt ccttgcagtg gatatacaag ttgttttctc cattcactct tgataaacat 1080
tccaaaaata atgggcataa ggaaatttct gaggtgatga atacattcag tatgttgatt 1140
atgtgattat ttcaaggggg tataaacaca cacacacaca cacacacaca cagaaaatt 1200
tatcaaatgt gcctttaaat tattgtatgt tgattctact tctaaaaagt tgtttagggc 1260
tggttgaggt cgtcacgcc tgtaatccta gcactctgag aggcgcaggc ggttggtatca 1320
cctgaggtca ggagtcgaag acgggcctgg ccgccgtgac gaaacctgt ctgtactaaa 1380
aatacaaaaa ttagctgggc atggtgtgtg atgtctgtgg ccccggaac tggggaggct 1440
ggggcatgag aattgcttga acccaggagg tgaaggttgc agtgagctga gatcgaccg 1500
ctgcacttca gcctggatga cagagtgaga ctctgtctc 1539

```

&lt;210&gt; 308

&lt;211&gt; 1793

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 308

```

gcctttttta ttctattttt ttctcttttt tcaatttttt aatatttcat atattttgta 60
tcactaggca gaagacattt aactatttag agattgcatg gtaaagtagt tagtattgtt 120
acagtaattt atagaatcag taaaccttag aggacactag taaatagaat attagaaagg 180
gaaactgttg ttctatttaa tcttcaaatt tgagcattta gtttagaaag cacaggctat 240
ttgattaggt tgcatgttta ttacatgttt ttgtcctact gcttttttct aacaggtaaa 300
gaagcattag ggagagttca ggaatgggtt tagttaatta gggctaactg gaattttatt 360
ttaaaaatgc tcacaatata gtgtgtgtgg ttcttttttag tttttatttt gaggggtggc 420
cttacttccc tcatttagct gtgcttcttt tcacagggat gcccggttag ttaaagacat 480
ggcaactgga aaatccaaag gctatggttt tgtatctttt tataacaaac tggatgcaga 540

```

```

aaatgcgatt gtgcatatgg gcggtcagtg gttgggtggt cgtcaaattc gaaccaattg 600
ggccactcgt aaaccacctg cacctaaaag tacacaagaa aacaacacta agcagttgag 660
atthgaagat gtagtaaaac agtcaagtcc aaaaaattgt actgtgtact gtggaggaat 720
tgcgctctggg ttaacagatc agcttatgag acagacattc tcaccatttg gacaaattat 780
ggaaataaga gttttccag aaaagggcta ttcatttgtc agattttcaa cccatgaaag 840
tgcagcccat gccattgttt cgggtgaacgg tactacgatt gaaggacatg tgggttaaatg 900
ctattggggt aaagaatctc ctgatatgac taaaaatttc caacaggtaa ttcgattttt 960
catagcattc ttttaagggtt ccatcttaca tgtcacataa aagctttgga aactctgtaa 1020
aatgaccaat aaaataaagc atatagctac tttcagttga ttgtatttca aaattgatta 1080
tttgcggtat taactgaatc ttaatacttt cttttcacag gtgtcaccac cccaataaac 1140
ttagacaatt ataaataaca gagtccattt cacataaggg tgcttactta gtttttctct 1200
tcctgtcttc ccactctttc ttcataatag gtgtttctta tgtgttccct aaaacaatac 1260
tttgcttttt cctaggttga ctatagtcaa tggggccaat ggagccaagt gtatggaaac 1320
ccacaacagt atggacagta tatggcaaat ggggtggcaag taccgcctta tggagtatac 1380
gggcaaccat ggaatcaaca aggatttggg gtagatcaat caccttctgc tgccttgatg 1440
ggtggatttg gtgctcagcc tccccaagga caagctcctc cccctgtaat acctcctcct 1500
aaccaagccg gatatggtat ggcaagttac caaacacagt gagccgggac tctaaaaaaa 1560
aattgtaatt catgataggc ttcgatttcc tgtgacactc tgaagacatg aaagttagaca 1620
tcggaaaaat aaaaatttta ttttaaaaat tgaaatgttt ggaaccttta gcacagattt 1680
gctttgggtg aggacacgtg tcttctagtt ctgccttttt aagtttttgt tcatgatgga 1740
tatgaacatg atttttcttt atgtacaaaa actaaaataa agtcaataaa gac 1793

```

&lt;210&gt; 309

&lt;211&gt; 924

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 309

```

catttgtttt tccaagaatt caggtattga aaaagctttt ctctttgatg ttgtcagcaa 60
aatctacatt gcaacagaca gttccctgtt ggatatgcaa tcttatgaac tttgtctgtg 120
catgatcgat gttgtaattg atgtgtcttg tatatatggg taagttatgt atatatcct 180
gcaatatctc agacaggcgg aaaactatta acttgatttg ttcagaagac taatttctga 240
ggcccttggc aagtgttact acatgaactg ggattgttct gaccatagtg ctttaacttg 300
gagcatgatt tctctggaag ttggctgtct ggtcttactc ctctggagaa tggctaagaa 360
aagttggaaa gcatgactag aactggactt gtttatcact gcaagtttct cccactgttg 420
tggggatggg ggagggttgc actgtgtctt ctactactg gaacttagtt agattgaaaa 480
actagattaa tttattttaa atggtctgaa taacaaagta agttctggtt cctgatttaa 540
cctcaggctt tgtggaatta gggattctta atctttcaga gagcaaagaa agtaattaga 600
atthtggatg ttggaagaac ttataaaaat ctgaccata tacaagtt tccaaaaata 660
atctctaaaâ tttgagctcc tcttttatgt aaatttgcca aactcgtat agaaatttat 720
gaaagccagc cagcaagtga tttttagtaa taggccagag gactggtgaa aactttggag 780
aattactggc ttttcaaaag ctgataatgg ccagggtgtg tggcttgtgc ccataatccc 840
agatgttttg aagcctgggg tgagaggatc gcttggggcc aggagtggga gaccagtctg 900
ggcaacatag acctcagctt tacc 924

```

&lt;210&gt; 310

&lt;211&gt; 907

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 310

```

cttttctgatt ttttctgatt gatttgcata gaccattgac tggatgttgt attttttttt 60
tctcaaagct aaactgtatg aaaaatcaag acttaaaaaa ggtaaatgga ggcagttgca 120
caattacatt tgtttaatga gcttttacat ttaaaaactt ttaattaatg ttatactatt 180
tcagaaattc aactgtatgt ataaaattat aaagaatgca tttgttattt aaagttagat 240
atgcgtgcag acacacagac catggtcttc ccttcttctc ctggtctact gcttctgcct 300
tatatccctc agattccttc tcaactccca aaaggcagag gttaagaaga aagttaaaat 360
atcaagacac actaaactgt ttttgtgggt agtcaagctg cagtgcctcg ctgactggga 420
aacaatgggc tgggcctcct agaatatagt aggtggaga aacagaaaat acagcttgac 480
tgggccttgc cctctcactc caagcctcaa caggatgcta gagctttagc atgctttctg 540
ctgtgctggg attattttct gcaactagac aaaaaaccca caaaactcca catgggttgt 600
tctcaagcaa ctggaatatg gaaaggcttg aaggaatact tacacttttt gatggaaggt 660
aatgacctta gttcttcagt atttattagg taagcatggg ttctgcagta tagcatttaa 720
aaattcatgt tctcagggtt tctctaagac aaaaatagat gtgtttggtc cagtgtgatg 780

```

gagaagtttg atgcaaatcc gtcttaagga ggagaatgga ggctgtcatg gagtcctgtg 840  
 gactgttttcg caagtagttg ttttccatgt nccagtttta cttaacttca gaaaattatt 900  
 gtttttg 907

<210> 311

<211> 2473

<212> DNA

<213> Homo sapiens

<400> 311

aagagggttat gccagtgggt gatgcagaat aatgaatgct ttgctttctc tggttttattt 60  
 ccttctactt aagtaatggg gtttaccac acattatgtc tagtttggca gtcttgaaca 120  
 gaagctggct ttggcagaac ggattcgagg ccacgtcctg tcattggcac tacagatgta 180  
 tggctgccgt gttatccaga aagctcttga gtttattcct tcagaccagc aggtaatgtt 240  
 aagtttcccc ttttaactttt ctcttggtgt ttgatgttcc tccatggtac atgtagttaa 300  
 ccctgtaatt ctgtcaattt tcagttttct tttatgggtt tgcattgttg cttatggctg 360  
 cctttttgtg catggcaagc atgaactgtg caaataattt aaacttggtg cagatcaagt 420  
 atcttgatatt aaaacctgtg gtatccaata ctcttcatt ggctagaact tagcctttaa 480  
 taggttcaat tttataggcg gttttttttt ccatgaataa agcaggtaaa atactaataa 540  
 gccatcattt tctccaacaa gtcaaacctt catccaaccc acctccata tttttttact 600  
 ccttctctcc tgttctttca tcccaccaac atctattgaa caaaggcctg cccagcatgg 660  
 tgcatagcct ggtacattga cctgaagccc actctgtgcc agacttcac agcacagaga 720  
 tgactaacac ctgatccctg cccacagagt gcattctggt ggggaagagc catggtgggtg 780  
 agcagtggtg aggacatgag aaggaccctt cacccttccc agagtccctg agggccgggt 840  
 ttgcaggaga aggcaaggct aaagaagagt tagacaggga agaaggaaca gaaatgagaa 900  
 tgcttaggtg ctgtgagtg ggaactgaaa gagaagtcac ctgaacaggc ccacagcttc 960  
 ttgacaagtc acggcgtggg tccagtgagc actgcagaca ccacagggcc caggaggcaa 1020  
 aacagaccca caggcagggt gtgctacagt tgtgtttgtg ctgggcagtg cctccagcct 1080  
 ccggtgcttc tcatctgagc ctgcagcttt tgggctctga actcactgag cccttctcaa 1140  
 ttgaggggtt ggttggccat tgtctggcaa tgatgacca cttgccctca ctgagaacaa 1200  
 agttcggtaa tgagaatctt tgttaatgga ctcaagttct gagccagaca agacacccac 1260  
 caccctctgag tcaagctaaa ccaatccaaa ccaactgcact ggtgttggca gtggcagttg 1320  
 aaggctgaag aagtccaaag tttttaaagt gataagtttc aaaggtatgt gccacgatgc 1380  
 tgggtgaagg agaaaggaat gttggagata gacaggtctt ggagttcatt tattcagtgc 1440  
 ttagtactag agatgtagca ttaataagaa agtataagta attagaagca agtgtgaagc 1500  
 tatttttaaat tttcttttaa tgttcagatc attgccatt ttaatttttc ttggattttc 1560  
 atagatagtt gaattgttct tctttaattt tcttgttttt ctttctttct ttttggggac 1620  
 aggtgtctac tctgtcacc aggctggagt gcagtggcac aattgtcctt gttgcagcct 1680  
 caacctctct agctcgggtg gtcctccctt cttggcctcc tgagtagctg gaactacagg 1740  
 catgcgccac ttcccctggt taatgtgtgt atttttggtg gagatgggggt ttcaccgcgt 1800  
 tgcccaggct ggtcttgaac ccctgggttc aattgatttg gcctcccaa gtgctgggat 1860  
 tacaggtgtg agataccata cccagcaatc gttgtttcct gtgttatatt ttgacacata 1920  
 tttttctctg tcatgtttct ctgtggtgtc ttgttctggg cctgacttat gcttcctacc 1980  
 ctttattatt ttactcttct ctagatgcaa atttgccatt ttgggtaaaa ttaactcacc 2040  
 tttgttggaa ttttatttct tctggatcac aaaaatatcc aggggaagcca tctctcttca 2100  
 tttgttttat aagtattctt tgactttatt tttgtataag cttcattgtc ataattatca 2160  
 ccacaattcc catcattcct ataattgtat tttcagagta aattattctc ttctggggcc 2220  
 agcacagtgg cttatgcctg taatccagc actttgggag gccaaagggtg gtgattgtct 2280  
 agggccagc agtttgagac cagcctgggc gcgcatggtg aaaccacat ctctataaaa 2340  
 agttggctgg gcatggtggt gactcctat agtctcagct gcttgggggtg ctaggcgagg 2400  
 gggatcgctt gagcccggga ggttgaggct gcagtgagca gcctgggtga cagatcctaa 2460  
 gagaccctgt atc 2473

<210> 312

<211> 2049

<212> DNA

<213> Homo sapiens

<400> 312

aaacgtgttc gctgccaga agaagggaag gcgcgagtga ggaaaggagg tactgtagct 60  
 acacttctgg aaaattcagt atggacagtc tccgacttag gatttttcaa ctttaggatg 120  
 gtgtgaaaga gacaccatt cagtagaaac tgtacttcca gttttgcatt ttgatctttt 180  
 cctggcctag tgataatgtg gtacagtaca ctcttgatg gctgggcagc ggcagcgagc 240  
 cacagctccc agtcacccat gtgatcacgg gaatcaacaa cccatcctct accgtgtact 300

```

gtgtgtgtcag ctttttttga tattgtgttt tgtgttttca cattccatca tgtctacaaa 360
atgtccatca gtgtctcctg tttctgttga gatgaagaag aggaaggcaa ttactcttga 420
aatgaaactc aagataattg cccagcatga aggtggcaag ccagtaatgg ccattgcacg 480
tgagttagga ctttggcaat ccacgatttc aaccatctta agggataaga agcaaatcag 540
tgatgcagcg aaatcgtcag catcagttaa atccactgtc atcacaaaaga aaagggctgg 600
accaattgat gatattgaaa aattacttgt tatgtggatg gaagaccaga tacagaagcg 660
tataccactt agcctactga tgatccaggc taaggcaaga agtcttttta atagtctaaa 720
agaccgtgoc agtgatccta catatacaca aatgtttaaa gcaagtcag gatggttcca 780
gcgcttcaaa aggcgtcata attttcacaa tgtaaagatc actggtgagg cagcacgtgc 840
tggtaatgaa ggtgccatag cttttaagga acagctgcat aggataatta tggctaaaga 900
tctttgcaat aaggagctga ttgcaactgga ggaagaaaga ggtaaaggcg ttgaggcagt 960
ggaagaagtt acacccacgg caccatagaaa gtccacagca aagaaactgg ccgaggcatt 1020
tgctgtctatc agcagtgggc tacacgttag aagaaatgga cgtcaattac gagagattcg 1080
ccacagttga caggcagata caggatgtct ttgcttgcta cagagaaata tgtagtgaaa 1140
agaagaaaca agctgtacgg tcaaaacttg gtatcttctt gaagaacaac actatgcttg 1200
ctaaaccatc aatagtgtt gatgtcccaa tgccttctac cactattctt cgtatgttcc 1260
cagaagagag agaaattgag gacctgttg catcccatc atccagcaat taattctatt 1320
tcagtgtctc aaacattttt caggaccact gtgctttcag ctgtgtaaat taatgatgcc 1380
ctccaaatcc ttggttatgg aatattttgg tcatcccgat acactcggct tggctgttgg 1440
agttgtctgt ggcagtggtc tgggctggag ccttcgagta tgccttggga tgcctcccaa 1500
aagcaagacg agcaagacac acacagatac tgaaagtga gcaagcatct tgggagacag 1560
cggggagtac aagatgattc ttgtggttcg aaatgactta aagatgggaa aagggaagt 1620
ggctgcccag tgctctcatg ctgctcttcc agcctacaag cagattcaaa gaagaaatcc 1680
tgaaatgctc aaacaatgga attactgttg ccagcccatg ttggtgttca aaggctctg 1740
atgaagcaca cccctgattg cattatttgg ccctgcacaa tatgtgtgga ctgactgtaa 1800
gtttaattca agatgttgga cgtactcaga ttgcaccagg ctctcacact gtcctaggga 1860
ttgggcccagg accagcagac ctaattgaca aagtcactgt tcacctaaaa ctttactagg 1920
tggactttga tatgacaaca acccctccat cacaagtgt tgaagcctgt cagattctaa 1980
caacaaaagc tgaatttctt caccacactt aaatgttctt gagatgaaaa ataaacctat 2040
tcccatgct 2049

```

&lt;210&gt; 313

&lt;211&gt; 1571

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 313

```

accaactaca aagaatatcc tgtgtctctt tctgcagtaa taaatttcag agtttaaaga 60
tcagagtctg catcctctgt gcttgcatg ctcatattt cttctattg acttttgggc 120
agagcctaaa aatgttgggc gttaggagt tttatactat tcccatacaa ctctgtaaaa 180
ttccctgctt taattagctt cagtctgatg cactggacgg cttctctgtg cttctctgac 240
aggcagactt atataaacag ctgttctttg ttggatcatg agaggagctt ccaggccgaa 300
ggctacttta aaaagtcgtt cttttttgtt ctcatattt ttctctccag tatacctatc 360
actgttgaat gttcccccca acttcccagt agtttgggtt ttagccattt cataccaatt 420
tatacttgtg ctatgataac ttttctaaag tctaaaacct aaacaaatag ctgggtgtgga 480
tattacttta tgttcttgag gtgtagaaag ctcttcagaa tagcttctgc tctttgtgag 540
ctccatattg cagtcaaaat taatgaaatt aaaaaacacc atgcctggct gatttttcta 600
ttgttggtag agatgggggt caccatgttg gccagactgg tcttgaactc ctgacctcat 660
gtgatccacc cgtaatctt atattatgta cagatcaaaa ggatggtaag attttatgac 720
tgcataattg tgaacctga gaacacttgg gttgcatcct ccatgccaat tctgatcatt 780
tggagcccat gcatcaggaa tgcctggccat catctatttg tgggtgtctgc aggtttagg 840
gaggtggggg tgcagataca tgcctatgtc tggctatttg ctgattcagc cataaaatct 900
aaaatttctc ttctaaaatg catgatgtag ctgggcacgg tggctcatac ctgtaatcct 960
agccattttg ggaagcagga gaatcacttt gcaccagga gttcaagacc agcctgggca 1020
acatagcgag aactacctc aaaaaaatt acaaaaatga gtagggcagtg gtggcacata 1080
cctgtgggta cagctacttg ggaggctgat gtgggaggat tgcctgagcc aggggtcaa 1140
ggctgcagtc agccatggta acaccactgc actccatcct ggggtgacaag gtcagatctt 1200
gtctcaaaaa aaaagataaa aataaagtgc aaaaatctca gtgggttaata cccatttttg 1260
ttagtaattc aagagtttaa gagttccag ctgggctcag tggcttacct ctgtaatccc 1320
agcacttttg aaggcagagg caggaggatc atctgaggtc aggagttcga gaccagctg 1380
gccaacatgg tcaaacctg tctctactaa aagtggaaaa attagccaga cattgtggca 1440
gacgcatgta gtcttggctg ctggggaggc tgaggcagaa gaattgcttg aaccggggag 1500
ttggagggtg cagtgagcgg agatcatgcc attgcaactc agcctggatg acaagagtga 1560
aactccgtct c 1571

```

<210> 314  
 <211> 1066  
 <212> DNA  
 <213> Homo sapiens

<400> 314  
 atcctgcctt ccttccaagt ttttaagact gtagcagtgg taatgagtag cttgtttaat 60  
 gaaaatgttt catcctggca tatcatgctt gtcttttttag tggatatcaa agtattgcag 120  
 agtgccttag cagccatccg acatgcccg tggttcgagg aaaatgcttc tcagtcacag 180  
 tgagtccctc cctaaccatt tggattaaga taaacttttt aactgcagtg aatagcagga 240  
 taccocccata cttcctctga cagaactatt ttgcctgtga cctcgtgtct ggatttttat 300  
 ttttacctta aggaagcaaa ttaagattta gagaaagcag agaattgata gttctggaaa 360  
 tagcatagtc agcttcaatt ctaccttagg catggaaata catgatcgta ttgattttta 420  
 tgtttgggtc actattactt tcagagttaa agttctcctc agactactga aggacttgag 480  
 gattcgtttt cctggctttg agccctcac accctggatc cttgacctac tagtaagtaa 540  
 agatgggcaa ttggagttcc tcatcatcct tatttactgg tagtagtagt agtagtagta 600  
 gtagtagtag tagtagtaac tctgaaattc accagagtct gaaatttggg gaagcttaaa 660  
 agaaattttt ttggtagaca agtaatccaa taaaaattca acattttacat gactcagaga 720  
 cattttgttt aaaaaaaga aaaaattcaa agtttttttt tttttttgta tattcaatga 780  
 aatgagtagt tactgagtta tagtgtcccg ttttcttctc atgactgcta ccattttaatc 840  
 atggtagtag agagaaatga gtgagcagcc atttcagaat tgcttctgaa catgaaaatt 900  
 ttggctagac ttagacctta atgaccagtt ttctcgtgta tcatttaagg ttttagtttg 960  
 atgcctgtaa tccagcact ttgggagggt gaggccagag gatcacttga agccaggagt 1020  
 ttgagaccag cctgggcaaa atagcgagac tctgtctcta caagag 1066

<210> 315  
 <211> 1174  
 <212> DNA  
 <213> Homo sapiens

<400> 315  
 atacattcta agccccaaga tttggatttt cacaagcgc ttataaacc acccaactga 60  
 gcttcaacac ttcttagaaa cagatttggt atactaagct tgagcttacc attacagtgt 120  
 tttatgcatg aaagtgccaa gtcagagaaa acatgagtag agaatgggga aggagagaga 180  
 cggaaaagaa gccgttgac gagttttaac tgatgagaag cacattgtca ggttctgccc 240  
 tggggaatcc cactctggct atgtctgcag ggatggtaga tgaagaacac agaacaagaa 300  
 tcatagaaga taaggagcca caaagggtca ctctggtttc aaagggtgcag tcaaatgtt 360  
 acacttctaa actgtggcaa cgagacacac cctgaagaaa gagagcgtta caccttcaca 420  
 agaaaacaga gaaaccaaga taccttgtga tgtctgtac ataccaagaa aaatatgtcc 480  
 taaccttgaa agccatttt ggggtgtgag ggaaccacat cattacaaaa ccaaaaagct 540  
 gtatctttct catccactat accccttctt ttccaaatgg acactgaga ctttgagcta 600  
 cttcatacaa cagagtttca cactgggacc tcccacgtct acctgcattt caggcccgaa 660  
 tctttcctgg catcagattt atcatcaaga acctttctgt ggttcatttc ttggggcaca 720  
 attctctcgt gatgggact aatcccgta aatcatccat ttttgttaac attaatgtg 780  
 atateccattc caggtatctg ctttgtgtat aaaaaggaaa tttctgaaga tacagcttta 840  
 tgtgaaaagg gagtgatttt ggttgagag gtttcataca taatgggagg ctggtgaaaa 900  
 ggattattcc ttgctgaaaa actctggaaa aatcatgcca tacggaaggc tgtcccatg 960  
 gcctatgcat ggattcgtg ctgtggggga gggacatact cttccactt ttacaacttc 1020  
 ctgatgtgag tggttcactc ccgggaaagg gggcaatgcc tttgtactgc cactttcccc 1080  
 ccaggtttcc cgctgtggg gtggagggtt aaactaaagg cggggtaac cggcgcgnc 1140  
 atgaacaaaa atggaaaaata gtgtcttggc atgc 1174

<210> 316  
 <211> 2083  
 <212> DNA  
 <213> Homo sapiens

<400> 316  
 aaaaaatgtg ctaaagagtg agtgccctta cttaatttct ggttaataaa ctaatgtgag 60  
 attaaaatag acaaggagaa ctgtaattgc atttttggtg tggacagcaa ggtctgtaga 120  
 gagcacaag tttacaggt ctgcagtga tgaaaaagaa aaacccccc accttgacag 180  
 ttaacatcac tttagtttat ggctgtttta gttttaaatt ttataagtga tcaaaagtta 240  
 aagtttgtgg attacacgat ctttcattcg ccctgttga tggattgggt cctgctttcc 300



```

tgagttttta atggaaacaa ttatatcata taagaaacta tctcacttgt ttctattccc 360
tggcatcata tatggaaaaa tacagcagtt agttgaattg tctgctagaa agtggccttt 420
aaaggaaaat ataagtggaa gaaaatttgc aagtgtgtac attaaggttg aagtgaaaag 480
gggaagggag aaggaggagg atgactgagg tcacattcca atttttgaag attatttgct 540
aatgttcacg aaggaagtta cagttgcctc tgaatgtag taçaaatttt ttgaggtcat 600
ttaaacttgt attataaaat tcaacatgat tagagattgt agggaaatca tatctgacct 660
tggctatatt gtcaaaacag aattttctat ctaatttgaa tcaagaaacc tcaactttttc 720
ctgtgcaatt gaagtgahta tttctggcaa aaagtatgtc ttctaatac acagtaagat 780
ggagagataa tttaaacaaa cagcttcaag ataaaaactaa aaaattagaa aaattgccgc 840
agatttcaat tctgctttga ttttgaagac ctggagagtg gacatcagca tactttgttc 900
tactcagtag ctatattctt gaaaagtgtt attctgaaacc aagttcctta ctgaaaaata 960
atthaaatcc actcaaattg cttgagctaa aagaatttca ttgtgactct tcttgtacag 1020
tgaagaatgc cttcataatg atcatgcca gtacatacat gcagtcatta ttattattat 1080
tattattatt ttttttttga gatggagtct tgcctgtctg ccaggttgg agtgcagtga 1140
cttgatctcc gctcactaaa agctccgtct cccgggttca cgccattctc ctgcctcagc 1200
ctcccgagta gcttggacta caggggccc caccacgcc cagctaattt ttgtatttt 1260
tagtagagat ggggtttcac catgttagcc aggatagct caatctcctg acctcgtgat 1320
ccgctgcct cggcctcca aagtgcctgg attacaggca tgagccacc cgctggcct 1380
acagtcatta tttttcaagt tctgatttat ttgtgatgtt agtttgtttg ctcagtagat 1440
caggtctttt ttgtttttgt tgtttttgt tttgtttga gacaggtctt gctctgccac 1500
ccacgtgga gtacagtggc acaatcagag cccactgtag ctttgacctc cctggctcca 1560
gtgatcctcc cacttctgcc tctgagtag ctgggattac aggtgcattg tgccacatcc 1620
agcaaathtt taattttttt gttagaggtg gattttgcca tgttgcccat actgatcagt 1680
aagtcttaaa ctgggtgatcc cctctacttc attgcaaaac tcattgatat ccccaaaaa 1740
caaaaggcata ttttaattat tctcaaaacc agggctgcta actcagctga caaacaggga 1800
aaaaaactat tattcctttt cctcaacca gtgcctccca ctaccctgcc cagaccccag 1860
ggattcctgg gcagatacca ctgtgggcta ccctagccag ctttttgag ccccatctct 1920
gcttgcttcc ccacacctcc ccagccagag cagacctgga ccccaacaga aatattcacc 1980
cctagcggca acactagcac tctctggac aaatgtttag tgatctatcc atcacctgcc 2040
acatctcccc tccactcccc tgcttaataa actctaaaaa tcc 2083

```

&lt;210&gt; 317

&lt;211&gt; 1251

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 317

```

ttaattctcc caccatctac tgcctgcctg gactgctgca ttaattggga ttcttttgg 60
tgtaagttag agaaatacaa ctgaaactat tgtaggcaga aagggggatc ttaccatttt 120
gtgcattcat gaggcggcat gtctaactta ggaacaatcc aagaatttct ccatctgctg 180
tagtggggcc catttccaaa aaatggacaa agtcaaaggt cacagcagtt ctgggttaat 240
aagatagcct tccatcctgg ccacaaccag agaggatgct ggggaatgctc ttcttggtc 300
cagtctcatg gaaggattct gattgggtcca gctcaggtca cgtgcctctc ctccatggtc 360
tggggcaaga tgtgctaggg agacagatac agagacagca gccctccttg cctgcctctg 420
cacagtggat cttgacattg ggaattttat tttattttat tttattttat ttttgagata 480
gaatctcact ctgtggccca ggctggagtg cagtgggtga atctcggtc actgcaacct 540
ccgcttcca ggttcaagca attctcctgc ctcagcctcc caagtagttg agattacagg 600
cactcgccac cacacctggc taatttttgt attttttagt gagatggggg acaccatgtt 660
ggccagtctg gtctcaaaact cctgacctca agtgatccac ctgctgtggc ctcccaaagt 720
gctaggatta caggcatgag ccactgtgccc tggctgacac tgggaatttg agatggagtc 780
tcggtgtatt gccaggctgg agtgcagtgc agaggcgca tctcggtta ctgcgactc 840
cacctcctgg gttcaagcga ttctcctgcc tcagcctccc gactagctgg gattacaggt 900
gtgagccacc gtgcctggcc aaatttgtat tttcaatgga aaattcagta atgtggagaa 960
gagttggggg gaaaaatgga aatggggagg ccatttagga gactaattcc agtcccagga 1020
agaatataat attagctggg gacaatagta atggaaatgg tgagaaacat cttgatttga 1080
gagtttaaat ctgaggaaac ttgtgataga ttagagatga ggggttcac tctaattctc 1140
tggtgcaaaa ccaaaagact gtgtgggtgcc attgctggca gagagaaaac tagaagagga 1200
acagatttta gggggagaat aacatgtgtt tctgcaaaag ctggaggcaa c 1251

```

&lt;210&gt; 318

&lt;211&gt; 787

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 318

```

agcagagtgt atcattgggt cataggggtat gcatgtcctc atcttcagta gatgctgctg 60
aacattttct aaagtgggtt taccaatccc tactcccact aacagaatgt acacattcct 120
attgtcccat atccgtgcc aacactcgata tttttttact ttttttcccc tataaccag 180
gacagtgtct atgcttttta atttgagctg ttctgggtggg tatgttggg tattataaat 240
aaatatacgc aaatatctaa gctttgacaa ttgaggaggt atcacaagga aaaacaccaa 300
gtggagggtg gagaaattgt atctgttggg ggtttatttg tagaaaagta tctcaagatt 360
ggtagctcca caatgatgca gctttttgaa ggctttcatt tcttaataata aaatagtgt 420
ttaatttttt gtggttataa gaataaaata tgcagtacta actaagtgcc tgggttgtgtc 480
aggcactggg ccaaatatat aaaaatcatt ttgaaaattt tggaaaacag aaaaaagtat 540
atgtgagagg ctgaggcagg aggatcattt gaggccagga attcaagacc ggtgtgttca 600
acatgggcaag cctctgtctc tacaaaaaac taaagaatta gcagggtgtg gtagtctcatg 660
cctgtagtcc tagctactca ggaggctgag gcgggaggat cacttgagcc caggacctca 720
agcttacagt gagctatgat catgccacag cactccagcc tgggctatag agtgagaccc 780
tatctcc 787

```

&lt;210&gt; 319

&lt;211&gt; 1282

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 319

```

ggcagggagg aaaggaagga aggaggcaga gaagaaagga aggaaagaag agggaaaaag 60
gaaagaaggg aggaagaagg ggaggcagac aaggaaggag ggaagggagg gagaaaaagg 120
aaggaatta tttttttcac aaagcactta tttttacctc tataaaatta atatacta 180
atgctatttt aagtaacata acagaggagt atatgaagtc taagtgtata agtaaaaagt 240
tcatacatg cagatttcaa cttttccatt acacaatggc ttctctttct gcccttccca 300
ggtctgtgt cctacccttt cctgttatt tctttatcat gtcacatgca ggtgctgctc 360
tactcacaca tggcgccctt tataatgcac acccagcctc tctacaaaaa aattaaaaaa 420
tgaattaggc atgggtgggt gtgcctgtgg tctcagctac tcaggaggtt gaggcaggag 480
aattgcctta gcctcggaat tgggaagctgc agctgcagtg agctatgatt gtgccactgc 540
actccggcct gggcaagaaa aagagacctt gtctccaaaa aaagaaggaa actggagcct 600
gaggcttcca cctcagcttt ctgagtacct gtgactgtcg gcatgtaccc ccatgcccag 660
cttatttttg tttttcttat agagacaggg ttttgcctgg ttgccaggc tggctctcaa 720
ctcctgggct caagcaattc tctgcctca gcctccaaa gtgctgggat tataggggtg 780
agctcctgca cctggcctta gttctgaatc cttttttttt tttttttttt tgagagggag 840
tctcgtctgt gccaggctg gagtgcaatg gcacgatctc agctcactgc agcctctgcc 900
tcccaggttc gagtgattct tctgccttag cctcccagat agcaggatta caggcaactg 960
ccaccacacc cagctaattt ttgtattttt agtagagaca gggtttcacc atgttggcca 1020
ggctgggtatc aaactcctga cgtcagggtga tccaccacc tctgcctccc aaagtgttg 1080
gattacaggt gtgagccacc acacctggc tctctacgaa aaaattaaaa aatgaatcag 1140
gcatgggtgt gtgtgcctgt agtcccagct acttaggagg ctgaggcagg agaattgcct 1200
tagccttgga attggaagct gcagtcagct gtgattgtgt cactgcactc cagcctgggc 1260
aacagaaaga gacctgtct cc 1282

```

&lt;210&gt; 320

&lt;211&gt; 2497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 320

```

gccattcttc tgcctcagcc tcccagtag ctgggactat gggcgccgc cccaggatgg 60
tctagatctc ctgacctcgt gatccaccg cctcagcctc ccaaagtgtc gggattacac 120
gcgtaaagcca tgcgccccg cctgttacag caaattctaa atgatgcctc caacaaagag 180
attaactcca ttattaatct tctggttaat gtgcttggcc aggatagagg gagttctgtg 240
taaaatgaag tgatagagag ctcacacaca aatgcactgc agggctcttg aactggaagg 300
catctgaatt cagccttctc attttacagc tgtggaaact gatgccaga gagggacatg 360
ccttagccag ggccacacag tgagacacag gttagagctgg atttggaaag agcatcctaa 420
tgcataaagc tgtctttctc cccttaccag gctgcctcct ggggttgacc ccttgggtt 480
ctgcactgag tccatccaca ctcatccttt tgggctgagc aggtcctacc ctgtgcaagg 540
cactgggcca ggaactaggc atgcaaaagag cggggagggc agtgctgcc aggactggca 600
aaccgaagag gcaaaatgat cacacctcag ggccccagga gagcatgagc accaagaaca 660
gtgaaagata aaatacagct ttgatgaact tcttcagaat cttgcaatca gaaattctgc 720
aaagaagctt taaaattgca ataccctgt taagttttgt gttttcacia tgggagtggt 780

```

```

ttcattttca gtttcatctg ggagtggggc acggttaagt tttcaatgcc tgataagggg 840
gatagacctc ttagagtcaa tgacaacaca ggtcactcca cgtgtactct agaagtctag 900
ggaggctttg agagtccaga gagagctatt aactccactt ggaagggcaa agttgctgtc 960
aaggcctcac agaagtggag atgctggaca tccccagggt ggaggggaga gggccccggg 1020
cccacgcca ggtgccttc tgcccagctg tccctgcctc gagccccctg ccctgccag 1080
gaaagtgcga gcgcctgtca ggcattccatg tgtgccactt gcagcttcaa atggcaggac 1140
atggatattt ataaccaga aggaagaaga aagccctgcc acggtctcta caccctgcta 1200
actgggggca tgtgtggcc cttcatggtt cactgcctc ctgcgtgtct ctgaacacag 1260
agatttcacg ctgtgattgc atttcccacc gctgtcctg gctgcagca gccagcctgc 1320
aggctatagg ctgcagagaa gctggcaagg agagaaaaac aaagctgttg agggctttt 1380
aaaattttt taaaatttta ttatttttag ctgaattcaa ttttttttg agacaagatc 1440
ttactctgtt gccaggctg gagtgtagt gcgtaatcac agctcattgc agcctcaact 1500
tcccatgctc aagcaatcct cctgcctcag tctttccagt atctggaact acaggcacgc 1560
accaccacat ctggctaatt tttgtatctt ttgtagagac ggagtcttac tatattgccc 1620
aggctggaat tccctgggctc aagctatctg cccacctcag cctcccaaag tgctgggatt 1680
acagggtgtg ggtaccatgc ccagcaggga gatcccttta aaggacaacc ccacgcaggc 1740
tgacctcagc aggggccact tctgatacaa agtacgttgc gccctctgcc ctgccccatg 1800
cagctgcttc tcttgctat gtcaactgtca ccttttagact ttccaagtgc aaagcaacta 1860
ccagtcctct ggccctcaag tcccagggac acatgtcaag ctctccacat gatcacctga 1920
agaccctcct acattattga ctcatgaac aaatatctac tgagtgttg ccatgtaccc 1980
ccggccctat tctaggcact taaggaaact tcagagaaca aaatagatgc ccctgtgtg 2040
cttatgttcc agcaagaagg gtacagacaca tggaaccaac ccaaatgccc atcaatgata 2100
gactggataa agaaaatgtg gcacatacac accatggaat actatgcagc cataaaaagg 2160
aatgagatca tgtcctttgc agggacatgg atgaagccag gaaccatcat cctcagcaaa 2220
ctaacacagg accagaaaac caaacactgc atggtctccc tcataagtgg gagctgaaca 2280
atgagaacca catggacaca gggaggggga caacacacac cagggcctgt tgaagggggg 2340
caaagttagg gagagcatca gggcaaatag ctaatgcatg cagtgttaa tactaggtg 2400
acgggttgat ggggtgcagc aaccaccaat gcacacgttt accgatgtaa caaacctgca 2460
cattctgcac acgtatcca gaacttaag taaaatt 2497

```

<210> 321

<211> 1645

<212> DNA

<213> Homo sapiens

<400> 321

```

cttacatgat catagcctac cacactgtct gcacgccccg ggatcttgct gtgcctgcag 60
ccctcacgcc tcgagccagc cctggacaca gccccacta tttcgctgcc tcatcaccca 120
catctcccaa tgcattgcct cctgctcgca aagccagccc tccctcaggg ctgtggagcc 180
cagcctatgc ctcccactag gccgcgtgaa ggttcccga ggatgggtct cagccgagcc 240
tgagtgcgcc ccaagatgga acatccctgc tgcattcaca ctggaacaag cccctccaga 300
tgagtgcgcc ggccccaggc cagcttcaact gccgtctctt cacacagagc tgtagtttcg 360
gctctgcccc ttagctcatt ttatgtagga gttttaaatg tgtgtttttt tcccttcaag 420
tcttacaaag ctaagacttt ttggtcatt cctttttgca tgggtgtcta ggggtttctg 480
acaatgtgct gttgcatttt tattttccta gccttgctaa aatctttccc ttctcaagac 540
tttagcagc tagaagtgc etttagaagt tgtctgtggg tgatgttact gtagtggctc 600
cagggaagg attgtccagt tacttttagg ggtttttggt ggggtttttc cccctgtgaa 660
aacttacttt gccctagtc tggctgctgc taggacttct gaggagcaat gggacatgag 720
tgtccctgta tctgcgccac tgccgcaagg gaagcctcag gaaccagcac ctggaggcca 780
ggatagccaa accctgggtg agcgagaggc tggagaacac aggagctcac ccagggtctg 840
tgcccaacca tgggccactg tgaacagact tcagtcctct gtttttgtt cataagccgt 900
tgagacatct gatggacttg gcttaggccc tgcctgggaca tcccacgtgt gatccctttc 960
actccatcag gacaccagga ctgtccttag gaaaaatgcc ttgagatggc agcaggagtc 1020
atattttctg tgtgtgtgtt tcggaaagcc gctgtgtcct gcctcagcac aaagaccag 1080
tgtcatttgc tccctctgtt cctgtgccac tccagaacct cagcagatct gagccaccgc 1140
ctgccagtgt gagaggcggc cactttcatg gcagctcatc agggcgaggg cccagacag 1200
cttcccagca ggccctagag cccggcctgg gccaatgatg gagggcgccc gccagcccag 1260
ggcctgcccc tccagaaggg actccccagg gcctggggga ggagaccctt ggaaaagtcc 1320
tctcttccca gctcctgatt ctggatctga gattctcaga tcacaggccc ctgtgtctca 1380
ggccgaggct gggctaccct caggagatc cagagactca tgcccattgc catccatgag 1440
tggacgtgt gtggagagtc caggatgacg ggatcccgca caagctccct tcagtccttc 1500
agggctgggc catgtgggtg atttttctaa agctggagaa aggaagaatt gtgccttgca 1560
tattacttga gcttaaaactg acaacctgga tgtaaatagg agcctttcta ctgggtttatt 1620
taataaagtt ctatgtgatt ttttc 1645

```

<210> 322  
 <211> 3657  
 <212> DNA  
 <213> Homo sapiens

<400> 322  
 atgaaatgtt tctgtatgtt attttgatat ttcccttgca gtttaaagaa agtaacttct 60  
 tttttctgtg tgtcaattgg aatgtgtgtg tacattatag caatgaccag aaaacaattt 120  
 ttaatatgta gtttatagtt actatgtaga aacttttctg aatactgtaa aaaattattg 180  
 gtgcataaaa tttgttatat tacatgcttt tatgtattat actcttccat atagtgggga 240  
 tatatatatta cttattttat taaatagatc tattgctgat gctgatatct actgccag 300  
 gactacagaa gctcctttct ggacaaccog tttattacac tctccatgta tccacagcta 360  
 tatcagaaaa gcaggaaacc agagaaaata tacctatttg aaagtggcat gtcagctggg 420  
 atgagagaga agagtaaagaa tgatggatag ttttagagaa taagactgct ttcaggaatg 480  
 aatgaagaca agcatccgag cacgtccaat gccatgctta gcaataaacc acacaactca 540  
 ctggccaaaa gtacactaag tctgtaatcg gaaaaattct ctggaataaa atagagactc 600  
 atatggaagt attcaggtga aaatatatcat catatgataa atagtctctgt caaagttagg 660  
 aaactgagta actgagagag atactactgt gagagaaatt gatttgctgt gatttgctgt 720  
 acatatgtat cagaactgca ctatgaaata tggttaaccag tagccacatt tgactactta 780  
 agtaattaaa atcaaattaa aaattaagtc tttctcttgc actaaacaca tttcaactgc 840  
 tcaacagcca cgtgtggcca gtggctacca tattaatggg tgctgataga aaagattgta 900  
 tcattgcaga aagttctata ggacagtttc tgcctatggg agaatttctt ctcaatcaag 960  
 agaggcacia agattatgat actattcttt gacaagaaat aagtccaaca agctagtctc 1020  
 gactgtgtgc gactgtagtc ctagtactct ggaggcttag gcaggaggat agcttgagcc 1080  
 caggagttca ggtctagcct gtgtggtacc ttggactgat tattggatct ctccagagtt 1140  
 ggcaatgcac aagataggac agcattctag cctaactcct ggttctctct tccctttccc 1200  
 attttcctta cgttgtcatt tccatgttac ttcttttaaa atttattttc gcttattttc 1260  
 ttgaatgtgt ttatgcaaac taaatctttc tggtagcgca ttgcagatta aagggaatg 1320  
 gcctattctt tctctttctg cctttgtttc tttacatgtg aaaaaaagat tgatgtcatt 1380  
 tgtttgagaa ttaatgaatt gatcacttgg agcaattgta aacatgtgga gcattatata 1440  
 cagaatagca tgtagttcag aagaaaacca ggtcatggct ttaggaaaag tcatggttcc 1500  
 taaaagttcg gtgaattacc agattagaaa atcttcacac attcattaga gtagcattta 1560  
 aatactgtga tattaacagt tgtcatgtgt ttggataatg tgaagtttgt gcctcacttt 1620  
 tggggtccac ctgcttaaca cttggaaaaa tcttgaaggc ccagattttt agagctgaag 1680  
 gtagatataa gtctgtttta ggtttaatgt ttttaggaaca cattaaaata cttctagtat 1740  
 cttgccattt tctgaatacc tcaaacgct tgaaggcac gtgctatgat ttgaatgttt 1800  
 gtcctcccaa aatgcgtgtt gaaatttaat tgccactata tcagtattaa caggtggaaa 1860  
 ctttaagaag tgatgaggct atgagagttc caccctcatg ggtgggattg gtgtcaatat 1920  
 aaaaggtgaa ttcggccccc tcttgctgta tctcgccctt tgccttctgt cacgagatga 1980  
 cgcagtcaga ggtcctttgc tggatattag caccttccca gcctccagaa ctgtgaactg 2040  
 tttatcctaa attaccagct ctgaggtatt tcattataac tgcgaaaaca gactatggta 2100  
 gtgcataatt taactttgca tcatctctat aagatggata aagggaatt gtaaaacttt 2160  
 tccttctata aagagagttg caaaatttaa atttcaatag gattaagtaa attattggca 2220  
 ttattttgtt caatggcagg tagactgaaa caatgtaaca ccttctatca caaacttatt 2280  
 caatagggtta ttactaatta tttgatttaa atagacacta atcccttttt tttaaaatta 2340  
 gtaagataaa tggatttcaa agaattattg caggatgata agatgaggaa caaaaacca 2400  
 atgtagaatt tctcaagaga acggtaatgt agaatttttg aagggtgagca aagaaaattt 2460  
 attggataat attctaacat tatttttata atgaatttaa ttttaaaata aatgaagaac 2520  
 taattgaaca ttttagagtaa tagtcatcct tagtgaatgt gaaacaaata gtgtagcttt 2580  
 atttgtggaa attgttacag ccccataggg ttgctattca tggctctaat gaagttaatt 2640  
 gtagcttcga aatttgtatg aaaatgtaaa aaaagttggc tcaaaaattc cactttatct 2700  
 atttattcat ttttagtttt gtcaccccaa agatgttttg atttttgtct caaagatcat 2760  
 gggaacttct taaagcaatg gaagtatcta aaaataatat acatactaaa aaaaagaagg 2820  
 cttcttttag aaaaaacatt atatttagat gatggagggt taattttttt cataaagtga 2880  
 tgggtgtgct ggaaacacct tgttttctct gagaaactta tacagaaagg aatagcagta 2940  
 gaataaagat tttgaacttc ttaaccaaag gaacctagat tgtcacttca gccaccataa 3000  
 aatgtatcta ttaatagata ctaaaaagtt atggctgttt acgggttttat gctgctgtca 3060  
 gcttgacctg taggcaatgg accaggaaag agatcagggtc aagtgccatc aactgttgc 3120  
 aaaaatggca acaaaagtaga gtggaaatca gaaccagata cttgattttc ttatgcctca 3180  
 aaatgttggg gcctcgggta ggagtaccac acagtccatt actctatgaa ctttgtgttg 3240  
 tcttaaaaaag gacacaatcc caagagtcct gtaagataac ttttaatgat aagtaaacat 3300  
 ggaagccagt tgaattgccc tgccttaggg ccttctgaag taaacattga aataaggaaa 3360  
 tgtgaggccg ggcgcagtggt ctcacgtctg caatcccagtt actttgggag gctgaggcag 3420

```

gtggatcact caaggtcggg agtttcagac cagcctggcc aacatgggtga aaacccatct 3480
ctactaaaaa tacaaaaatt ggccgggtcat ggtggcatgc gcctgtagtc ccagctgctc 3540
gggagactga ggcaggagaa ttgcctgaac ccgggaggcg gaggttgcca gtcagtggag 3600
atctgccact gcactctgta gtttggagtt tgggtgatgg agtgagactt tgtctccc 3657

```

&lt;210&gt; 323

&lt;211&gt; 1687

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 323

```

tcctttatcc agcttccatt ctctcagtta tgaggctctt tgaaaatgtc ttaactttga 60
tgtaaathtt taaagccaac ccctcatcaa gacagggttg gtttgggtct tttgtacaca 120
gggtctggac cttctcattg tgtgcctccc accagcgtgc acttcgtatg tccagccctg 180
gggcccttca gcagcattgt gcgtgtacag gtttctaggc tgtaaagactg aatgaatgta 240
catgtgttta tatcctctcc atatgtacag tgtatatagt gtgtatgtgt acatagatgt 300
atattatgta tacagacatg tatccaaact ttcctttaaa gagagttttt cataaagtty 360
ctaagttaaa ctgatatggg tgttccaagg tccctcggca gggaaagattt gctggtgatt 420
ttcttcacac cattttcctt tgggtgagcc tgccctggga gggccatgaa gtcagaatct 480
ccactctgca aaaggaagaa ttccaggcag aagaggttct gacagggtga catttccgta 540
tattctctag gttcggacaa gagccaggaa gctggaagac agtttatctt aatatccaaa 600
actaagtggg aatttttaac ctttcatgc acctattcat ggccctacct ggaaggaaact 660
tggcagttgg gttgagccat cagccttccc agctattcag ctctgttgag tagccagag 720
acaggcgtca cggtcagaga ttcagaacgg tctgtgtcag tgaggcctga ctcccaaaga 780
tggttagcaat ttcccaggct tgcgctgtgc tcagtcagca agatgtgggg cactgtccta 840
tgactgaata aatagtaatt cccatctttc tatcgccagt taaaaataaa caacctacca 900
agtattattc tttaaaacta agcatggatg ttgatggcta acttctcgcg catataagct 960
acagatctca agttacttct ctaactgtaa gcatgtaaat gactttaact ctttctata 1020
agttatgatt ttaaattttc agataagaat tgcattttta tatggatatg tgtgccctta 1080
aaagctacag ataccaaaatt ttccctgctc aggtctactc ggacgaattt tcccccttaa 1140
tctggcctta aactgagact cggcccttga gagtccgggc ctggcccagc aggagttgct 1200
catagacctg ggaagcaggg gcctgctgga aggaatcact agattgctgc aaaaactcac 1260
ataatccaca gtttctctt tttcttttta aaataagtta tcaaatgtt ttaaaaacac 1320
tttatgagac catagtactc agtgcccttt gtgagacagt gggtcattta gccttcagct 1380
tcctgtttt tgatgtagag aaagcttcta tttcactggc ctcatccac aagattgtgc 1440
gacctttccc cgtcatagcc tgtcgtgaca atcacgctat tgaaagtggc tttctagtta 1500
aaatgcaatt ggaaacttga cagtctctaa atgaattaaa agtttccttt ggggctattt 1560
agcttaacag cagtctacaa ataattaaag tgtgagctta agaaaagtat ctttgcgggg 1620
agaaaaatgt cagatathtt taatgcccag ctataaataa ttttggtgtc ttgatattta 1680
tacatgc 1687

```

&lt;210&gt; 324

&lt;211&gt; 2356

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 324

```

gtataatggg cttgatctag ttttaagaca gttatagcat gccgttgctt atacatgaca 60
ttggatcact taacgggttt tttttggtac aagttagata gactgtttat agtatctttt 120
gggcattggt taaagcgcat attgacttgt cagctggtaa gagccagggt tggctaccct 180
gtatatctct ttatcttagt ttacctctc attacattgt tatatggaca taaatgacct 240
tgtaaaacta gttttataca tattgggaat ttaattttt agggaaaggt tacttgaaat 300
ccctattgt ttctgtttta gtgttttctc ttcatgttaa tgtttttatg gttttattta 360
ttaattcagc attcattgga gcaactgctg ctccctgtct cagggtgggtc ctggaatggt 420
ggggggagag ggatgccagt tggtaagatc ttatccctgc cctcaagtac ctacagttt 480
ggtctcagcc aattaaagt ataggtatat aactacattt tttttcaga taatgatgtt 540
caggagaaac tactagtaaa agcatactga ataacacca tatgtttctt tttgttttag 600
tgctccaagg gtataccatt cctaaaggca cattgatctt acccaacctg tggtcagtac 660
atagagaccc agccatttgg gagaaaccgg aggatctcta ccctaactga tttctggatg 720
accaaggaca actaattaaa aaagaaacct ttattccttt tgggatagggt cagttacact 780
tttttaact gcataatttt taaaagaagt agaactaaaa taatatttta ttatttcatg 840
ttgttttaaa aatgtttcat tottggaag ctaatataag agaaggatc aataatttag 900
acaaggcatc tcccctatgt tcatctcaga ttttaataaa gcagttgggt ttaaatctct 960
aatgtgact agaaatttta ctttcagagc tgatcaggta attttggggg gtcccaggga 1020

```

```

gctacttaag agcaatttct gatctggtct ggtgggtgag agaattgggt ctctaattct 1080
aacagttcct ctttttaggt cctagattag gaacatagaa ttctttctgt ggaaaaaggg 1140
aggctctagg gattcttatt tgaatttttc cgccttaatc ttccaggcaa aagtggagga 1200
aagaggtaag taggcacaga agagacagga tagctgccac actggatctg tctctagtcc 1260
ctgtctagaa tggggatagg tttttatgag taagagttaa aatgtggatt tgatatgtaa 1320
aaattctgat cagcatatgc tgtgggaggc tatgtggtat atatggcaat ttgacttaaa 1380
aactccatct gcatttagaa tactcaattt agatatttca tataaatttg tactttttga 1440
aataggagaa gggatggtat tataatcctt ctttttttcc tgatctcatt tttagggaag 1500
cgggtgtgta tgggagaaca actggcaaag atggaattat tcctaattgt tgtgagccta 1560
atgcagagtt tcgcatttgc tttacctgag gattctaaga agccctcctc gactggaaga 1620
tttggctctaa ctttagcccc acatccattt aatataacta tttcaaggag atgaagagca 1680
tctccaagaa gagatggtaa aaagatatat aaatacatat ccttctaagc agattcttcc 1740
tactgcaaaag gacagtgaat ccagcaactc agtggatcca agctgggctc agaggtcgga 1800
aggagtgtag agcacactgg gaggtttcat cttggaggat tcctcagcag gatacttcag 1860
ccattttagt aatgcaggtc tgtgatttgg gggatagaaa acaaagtacc tatgaaacgg 1920
gatatctgga ttttacttgc agtggcttcc accgatgggc caatcttctc atttcttagt 1980
gcctcagaca tcccatatgt aaaatgagag taataaaact tggcttctct ctacctctca 2040
gcactaatga tgggtcaaatg ccttacatct tttctgatat ctctaaaatg ctgttaagtt 2100
ctggagaaga acttcaggag aagaagatct atcagctggc ttttaaagac ctatgacaac 2160
atgaaagtgg tgttcagctt ggaatgcttt gtcagagatg ggtgtggatt taggttatac 2220
tgggggagaa cttttctcag cacagattct atgccagctt ctttgggctt gttctgtcac 2280
tatctttttg tttatgattt tagtttttac tttttgtaga tgtgggatga agtggactct 2340
gtcgtgtata ttgagg                                     2356

```

&lt;210&gt; 325

&lt;211&gt; 1224

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 325

```

gttcttactc aatgacatga aaacottagc cagatacatc taaaaaaatg ttttggctct 60
ggttgtctag ctctcttttt gtagcttatt tgtttgtgtg tgtgcacatg tgcgtgtatc 120
catacatgag ttctgctatg ttttttatgc tagacaacgt cctgtgggtg ttgttctcaa 180
ctgggtatct atgcctacct gaactgaatg tgtaattac agagtgtctg caattcttca 240
gtctgcaatt atcaacgttc ttcaactatg atatttccat agcttttagc acatagatct 300
gtgcaaatat ggtacctgag aagatggaac atccttccaa acatgcactg ggaatcacct 360
catcacacat gactattttg agcaggattt tatatgctgc catgaatttt gataggagaa 420
aaacttctgt tctcttaaat ctctatttaa aaaagagaga gggaggcaag aagaaaaaaa 480
agcaagcctg caattatcta ctttttttat acaatcaaat gtttcctaca cttacagcag 540
ctatagttta agaagtccat gtactaatta atttgaattt gctgtttcat cattgcatgc 600
caatttatag acaatacaag cacacacaaa attaagtcc ttgaacatag ttgacttaaa 660
accaatgtta atttttatct cttttcaaag tcattatctg ctttttagatt ggactttcat 720
tttgtaacaa agagaataat tttttaaaat tatatttttt aaaaatagag aaagttggct 780
gtttttgatg gccacagaa aaactaaaat ataattaagg gagaacagat acataggtat 840
gaaacttggt tgggtacttt cactgatact tgcacaaatt acatatttac ctatgttatg 900
ccacttctag aagatgcttg ttaatatat aacattatct tttactgttt tcaccttaat 960
ttaatttcaa aaaatctttt tataaatggc tagtatgttt tgtaaatcca tgcattcaac 1020
aatgaccat ccacagatac tgcattgcaag gctctgtgct gtcctctaga tgatgcagag 1080
atggttgatt tctggaatct acccacagat gccagattta caagaggata ataaagtta 1140
aacatgttca ataccaaaga tggtttttgg taataccctg caaaagtta gacaagacag 1200
aaggctgata ttttcaggga aagc                                     1224

```

&lt;210&gt; 326

&lt;211&gt; 1931

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 326

```

aatgatttgc ctaatattta cctgetacat aacgttttaa gtgtcttgc gaattctaag 60
tttttccagg ctaatgaata agtaatgtgg atgtggaatc agatttttgc ttgagtctgg 120
tggtagctca atataatata cacagaaaag tatcagttct tctgtttcaa gcaagcatat 180
tatctctggg ggccttccca tttttgaagt tgcgtttagg atactttaat ccttaacatg 240
aatcagtata aaagaaagca tgtgggtggg tgtgtttggg tgccttttcc atccacttgg 300
tgcttttatt ttctgtgggt gttttattcc acagcttagc aacagcagat ttccaggaga 360

```

```

agtcttagtt cttcatctct ctctccttcc tctggtctgg ttggttgga acagtgagag 420
taaataaaat gctttttgtt tttctgtctt cccaccacag tgtctttggt ttacttttag 480
gaccttcatt ttcaatctct gagccagaag acctgccttt aaatcacagc atttcaattc 540
ctccctccta tctaggcatt cctttatgtt tctacagtac tctgcatgca tccctgttat 600
aaaatgtatc acattgtttt ggaattttcc aaagttgagc tctctttcta aataaactgt 660
acttcttgag gccatggacc atatttttat cattcataca tacctgttac gtaacacaat 720
gcttggaat ggtgggtggg tgactggatg gaagaatgaa tgaagaagct tgaagagagc 780
tgacttatga tgctaccata tatgatgatc tctcattcat gtccaccacac gttaatgatt 840
gatataatc ttggctcact cgaacttttag taaatatgaa tcatgtgtgt tattcaaact 900
tttttagcaga gaaataataa aactcctttt gtaaaccaaa gattgtacca ccatctgtgt 960
tttggttgtt ttgggttttt cttttctttt tttctttttt tttttttttt ccccaaaat 1020
agggtcaaaa acaacaagg ctaacttgca cctaagattg aggagttttg atgcagtaga 1080
gtagtaacct cctgtatttt ccagcttgct attgtaaatt aaataaccta tttttgaatt 1140
tttaaaatat ttatacattg attccaatag aagtataaaa gaggagaggt agttctttta 1200
agataataag gaacatgtgt tatggctcaa ttcttgatta ttattgagac tgtaagcaat 1260
gtaagcaact ctgaatggtt tttaagactt tctttttctt ttttaggacct ctttgttttt 1320
agacatgaat tggccataat gagactagca gcctttatgg gcattactat gttagttaga 1380
ataactggac tcttttacac tcaactaatt ggcactatca caaaaggagag tcttggaat 1440
tatgtaacaa gtgtaatttg atgagaccaa agcgtttcca tcaactgtagc cgctgaggcc 1500
actgtgtgag gagaatggat catcactgtc catggattaa caattgtgtt ggtgaagata 1560
atcattggct ctttctgcag ttgtgtttct acaactgaact tcttacttgc tacgactga 1620
tggtttcttt ctgccactat tactattttt ttccactaaa aaagcgtaat ttggttaagaa 1680
atgtttatat tgggagggcg aggcggggcg atcacgaggt caggagatcg agaccatcct 1740
ggctaacacg gtgaaacccc gtctctacta aaaatacaaaa aaattagccg ggcgaggtgg 1800
cgggcgccct tagtcccagc tactcgggag gctgaggcag gagaatggcg tgaaccccag 1860
ggggcgggagc ctgcagttag ccgagattgc gccactgcac tccaacctgg gcgacagcga 1920
gactccgtcc c 1931

```

&lt;210&gt; 327

&lt;211&gt; 1742

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 327

```

tgagagtcta tgggactcag aaggtggcag atatttttta ttgtgggaaa gataactgag 60
aataaagcta tcatgcagat atttgcagag ataaaagtaa tgcagatatt gactggagcc 120
ttgatcaaac tatgcttgaa agccactcta ccactagtta cacgagccaa taatttccct 180
tcgcagtgga agtcagcttg agttttttca ggtgtttctg tgggtttcac cagatccagc 240
aaggaaatta gaattactgt taatggatgt taaaccagt cagaagtatc caaagtata 300
taatttgta aacaaccata tagatatatt ttgtattata tttatccttc cattcttcc 360
ttggttaggaa aattatctca ttaattctta tatgaaagga cttaaaatta gcaaactttt 420
tttgcaacaa catggattcc attcttggaac ttgaggagca tttgacgaac aggctgggga 480
ggccttgagt agtctggagc cagctcgaag cagagcagag ttaatgccac tgccacttta 540
caccacaatta tggcaaaatg ctgcccaatg cagttoctgg ggatacccag aaagaaaaaa 600
tggcatctca tgaatttata tatggttagg aacataagcc agtcttttta tatatgacaa 660
cttttgtagg aaaacaagat ccattttttt ttctgtcatc catgctggat tacagggtcg 720
tgccatgatg ccagctaatt atttttgtat ttttggtaga gacagggttt taccatgttg 780
gccaggctgg tctcgaactc ctgatctcaa gtaatctgcc taccttggcc tcccaaagt 840
ctgggattac aggtgaagagc caccactccc agccaagatc catgttttaa acaaattcca 900
atgtggcaga atccagcaaa tgtcttattt taagttaagt aagccccgat cagaaagtcc 960
attaatgtca agacctgcaa actgtgtctc tattattttt gggcccatct tacaagtaag 1020
tggtagttag ttctatcaac atttgattct gcagggtcca cgtaacttga aaaccttct 1080
tatatcatga taaggaaaag ctacttctta ctattattta gaggctgtgc agttgaagcc 1140
ttaggcataa gaacaataac ctggcatact cagtggattg tgttgtcatt tggtaaactg 1200
ggtgtctctc ataccaaaac aaagggaaac ttggacttca gaacaacatt gctctctgta 1260
ggaacaagag ctggagggtgc caatgttgcc ttgttctat aacaagggtg cattcccaac 1320
gcttgtccat tgcaagttta agtgtagtct ttgggcctgt catgaggatg gccttcatca 1380
attcacgcc atatgccaaag gaccagagtt gttctttgta acattaacca gtcccttttg 1440
gggctcaaaa ggttaccatc tgagtgcact ggtcacaaga gaagacaagt caggtaaaat 1500
gatggggagc aacagcagtg tcagctaact gaaggcctga agggaagaag cacttgtcag 1560
gtaagcacta ttacacattt ccatcaagtt caccagcttg agtctttacc ttaatccagc 1620
tgagaatggg atgaaggcat agggatgcat tttttcagaa ctttccctgg agaactcaa 1680
ggggttaaa acctgtaatg agagtcaaga tcccagtcct aatccctcca gcccaccccc 1740
ac 1742

```

<210> 328  
 <211> 1714  
 <212> DNA  
 <213> Homo sapiens

<400> 328  
 agcagaccct gttttaaaaa atacatacgt gggaattttt ttggttttatt acatgtggaa 60  
 gaaatataaa ctactatctt ttttgccttc ttgctgacag catggctttg gggaataaat 120  
 atttgaaaat aatcctaata cctttgttag ttatagctcg tcattctaaa taatgtattt 180  
 catcccttta gcaaacttga aacacaggca agtgtaagaa attaaaagat aagaaataaa 240  
 attgggaaaa aaaagtgttt ttcttactgc taatactaca gagctcatat ggtacatgtc 300  
 cgttccctct tggacagagg cctgctttgt tcatttcctt ccatgctgct tgtccagctc 360  
 ttgcactaaa atgatgattt cctgtggtaa ttttctgttg tctacagagc atactgatgt 420  
 gtagatcctg caagtatttc tgtaaagcag gtcaaccttt gctctaacta accatcgtga 480  
 cttattgatt tatattctaa ttgtagaata caaagaaata tttaaacaac acaataactt 540  
 ttatcatgga tcagtatatc ctatggaatg attttgcaga atgaaaacta tcatattctt 600  
 gggagcaaat gtgtatctct taatttttta cttagaataa taccttaact aacactgaag 660  
 tgaacttaga gttaatactc actatccaaa ttttaataaaa acaagtagaa gctgtccttg 720  
 atcttagata aacagaatgt ctaaaatgaa aaagagaatc taaaatgaga aaaaaaccct 780  
 gcacatctca cgtagtttta tgaacagatt cacagttcca tgttcaatga gttaatcttt 840  
 ttagtatcta agaccagag acattaggaa ggcagtgcag tgttagtgag gtactgaggt 900  
 taccttttaga tttcgggaaga ataaatttgg gctgttgtaa gtcattcttg tgggtgtgce 960  
 tctgggtgaa gatgattgca taggaaggat cgtctatttg tgtagcacac agaaatgcct 1020  
 cactggaacc tttagaggag cttgtgaggt acttgtcagt actcctgagt ttgaaaaact 1080  
 cccctatgc taaagggcc agagactcac ctgttgccac tgagaagtgc tctcggaact 1140  
 gcaactagaat ggggtgttcc agaaagagcc tctaaagatt ggttcataaa tattatccaa 1200  
 ttttgtaaga atctaaattt ggttcttaga gaggcaccag aaacagaatg gaagtcttac 1260  
 tcaagttcgg aaggggcca tgggttttca agctagcctt catagtctta cagtaactaa 1320  
 cactgggttt tagtaataga gaaagaatat tttaggatatt ttctctgttc acagctgttc 1380  
 ttactcattt tactggtttc catggtttct ggatttatca tagcttttaa aattagtgtt 1440  
 tagggcaggt gtggtggtc acgtctgtaa tccagcact ttgggaggct gaggtgggtg 1500  
 gatcacctga ggtcaggagt tccagaccag cctggccaac atggcaaaac cccatctcta 1560  
 ctaaaataca aaaattagct gggcacgatg gcagggcct gtaatcccag ctacttggga 1620  
 ggctgaggca ggagaatcac ttgacctggg aggtagaggt tgcagtgagc cgagatcacg 1680  
 ctgttgcaact ccagcctggg caacagagca tccc 1714

<210> 329  
 <211> 1248  
 <212> DNA  
 <213> Homo sapiens

<400> 329  
 tagtaactta atggaacggg agcttattca gtaaaagtga aagcagaaat tgtagatgat 60  
 atatcaaagg tatttatgta agataaggca gaacttagag tccttgtttt catctaaatc 120  
 caaagacaaa ttaattggata tacgtttgtg ttttatgttt aaataaaatg gttttgtttt 180  
 tgttttttaa atacagatgg ggtctcatta tgttgcccaa cctgggtctca aactctggg 240  
 ctcaagagat cctgtgcct tggcctcccc aaatgctggg ataacagggtg tgagccactg 300  
 catccaggct aaataaaatg ttttagactgt aaatgtattc tttctgtgta tttcctactt 360  
 taactaattt ttttcacct tcaactgaan cagtactcat agtgtcaaat aagagagctc 420  
 tggagctcct tatttcaatg atctctaatt ggactcagtc taagaaagga ggggcatcag 480  
 attttctgct gcacgaggct gttctgaagt cattattcta gggtttgaag atactactt 540  
 ttctggccct tacttgactc ctctggccat agctccaaac tgtctagcca gattaccagg 600  
 gttggcctca gatgaacact ttagtatttt gatgctaaat accagtgata acctataaat 660  
 atttctcaac ctatgatgtg tgttttgttt taataaatcc actgtaagtt ggaaataactg 720  
 taagttgaca atgcatttaa tatgcctaac ctactgcact cagcctgtct caaaaaaaaa 780  
 aaaaaaaaaa aaaaaaggaa acaactagt tgagaaggag aactgaaaca ttgttttgca 840  
 aaagtgttgc tgtgaacaat gggcgctcat gtccctctatg gtgcagattc ccttgattc 900  
 atagagtgtc ttatctttgt aactagctat atttttcta tagtaatacc accattaaag 960  
 gaattaaagt gacattaaga atgaagaatg ttttaaatct tttaaagtct tgtgcattct 1020  
 agattcagta aaattccagt agtaacaaga ttttgaagca actgcagaaa ctctgcacag 1080  
 cccacgtgt aatgtggctt tagaatatgt gtttcttcgc ctgtagtctc agctactcca 1140  
 gaggctaaga caggagaatt gcttgacct gggagggtga ggctgtagtg agctgagatt 1200  
 gcgccactgc actccagcgt gggtagagca gagttagact ccgtcccc 1248



<210> 330  
 <211> 1451  
 <212> DNA  
 <213> Homo sapiens

<400> 330  
 ggcctacgga agctgggtct tcttctctgt aggtcgcggt cccagtggt acggagggtc 60  
 cttgagggcag gaggtaaaat tgggtctggg ggttagtcct ggggtggagg tctgggcacg 120  
 ccgggtcgga cccctccat cttcggtttt gcacaccccg cttccagcg cggagtcgcg 180  
 gcgggtaggg cggcgctcgcg tgcgtgacgt catccagcgg cgctcgcaa ggctccagt 240  
 gccttgacct ccgcgggcgt gggaggtgc gcggcgatgc tgcagttcgt ccgggcccgg 300  
 gcgcgggcct ggcttcggcc taccggcagc cagggcctga gttccctggc ggaagaggca 360  
 gcgcgtgcga ccgagaacct ggagcaggtg gcgagcgagg gtctcccga gcccgctgct 420  
 cgcaaaagtgc agctcccgt accactcat cgacgccag tgcaggcctg ggtcgagtcc 480  
 ttgcggggct tcgagcagga gcgcgtgggc ctggccgacc tgcacccga tgttttcgcc 540  
 accgcgcccc ggctggacat actgcaccag gttgctatgt ggcagaagaa cttcaagaga 600  
 attagctatg ccaagacca gacgagagcc gaggtgcggg gcgggtggcg gaagccttgg 660  
 ccgcagaaag gcaactggcg ggcccggcat ggagcatcc gctctccgt ctggcgagga 720  
 ggaggtgttg cccatggccc ccggggcccc acaagttact actacatgct gccatgaag 780  
 gtgcggggcg tgggtctcaa agtggcactg accgtcaagc tggcccagga cgacctgcac 840  
 atcatggact ccctagagct gccaccgga gacccacagt acctgacaga gctggcgcac 900  
 taccgcccgt ggggggactc cgtactcctc gtggacttaa cacacgagga gatgccacag 960  
 agcatcgttg aggccacctc taggcttaag accttcaact tgatcccgcc tgttgcccta 1020  
 aatgtgcaca gcatgctcaa gcaccagacg ctggtcctga cgctgccac cgtcgccctc 1080  
 ctggaggaca agctgctctg gcaggactca cgttacagac ccctctacc cttcagcctg 1140  
 ccctacagcg acttcccccg acccctaacc cacgctaccc agggcccagc ggccacccc 1200  
 taccactgtt gatgtgaagc acctcttggt agccaggccg agcccatggc cgaattggga 1260  
 gcctcaggcc catgtccacc cttcaggaa ggtgtcacct ggaccccttc attccacgga 1320  
 ggaagctgag gccacaggga gcggccatcg ccattgggaa ggggcgactc cacggaaagc 1380  
 ccagacgggc ttctgcatcc attccctctt tttgttttta aaataaattg tatttttgaa 1440  
 tcaaggagga t 1451

<210> 331  
 <211> 3685  
 <212> DNA  
 <213> Homo sapiens

<400> 331  
 gtgaaatagc aaatgcaggg tccctttcac ataaccattt tgctgttctt tcagaaaaat 60  
 ctaaacaaac caagacattc acaggagggt ttccttcctt oggcaccaga gaggtgggtta 120  
 tttgtttccc actaggcaca agagagaaga aaaacacaac agaaaaaat attaatgata 180  
 tactagagat ggggctagaa tggcttttgc tgttaggaaa aatgggaaca tcttagagac 240  
 tctatggtgc tatcttacta aattaccagc aagtaaaaga aaggagggtt tttaaaataa 300  
 ataaatacat aaacagggtt tttgttttca tttcagaaa tatctctaaa agcaaatagt 360  
 tttacagcga tatcattata tgtgttaaac ttccagctct ctgagtatga cttctgcatt 420  
 tttattttta ttttttagatt cagttttgtt cacttgggca tgtgtatggc ttggagacag 480  
 gcaggaatgc caaaaagctg gtagatgatg gcaactgtga tgagcagaag aactcactgc 540  
 ctcagttacc tggatgtggg ccattttctt tccctggagt tggaggcggg gcaacaatgt 600  
 tgaactggc tggaggttga gagagaaact gaatttgtt cagggcctag tgatatttta 660  
 gtgcataatt ttataaaata acagctccat tccatgaata taggagagga aaaagattat 720  
 tgagaaaaata atttttttac aggcactggg actttttttt catgttttgt gttgtagttg 780  
 cattttacta gagcagctga caccattcta tgtggtctga tttttagttt caaagaccaa 840  
 aaccaaataa aaagatctac tctttaaaaa ctctcttttc caatgagagg attatggaaa 900  
 aagtgcagct gattgaaagt ctgtgttcta tttgccagag tgggggaggg agtggttaagg 960  
 cagggtgact gggatagacc agtcacgaag gagctggaac attcaccag gccattggc 1020  
 atgtgaattg tagaaggtct gtggggaaga caccatctgc cactgttttg caggattttg 1080  
 ccaccatggc acagagtggg caattgtcct caaccttggg ggcagaagct ggcagctggc 1140  
 caaaagtctg cttctccca gaagagatag gcagtcactg agccgagata ctgatgatg 1200  
 ctctctctta tcgtgcaaca tggagagcgg gagaaaaatga gggaggacag aagagaggag 1260  
 aaggaggagg aaaataagaa aaggaaact aattaactca gcctgtctat ccagctaagc 1320  
 ttgagcttga ttttgcctc tagttgaatg gaacatgcaa cctgaatttc tgaataacag 1380  
 aattaccaaa ttactgttta agtgtttgag aaaaaaggt gaaaagtgtg tgtactatat 1440  
 gtatagacgt atagattgac atatagtga tgggttaatt gaatgtctgc atcagataag 1500

```

aagggtgtag gtcaatttcc acaataatgc cattaaaaatc ggttccttga ttaaattccaa 1560
ttaacagatg tggaaactga ggtttgtgac aagggttcaat ccctgatttc tgtgactcca 1620
aagtattgtc tgttatttaa tgtttatgta ttctctatta tgaattgttt tcaagttttt 1680
taaaatatca ctactagacc tgtacgtttc ttaggaggca aaaacaattg ccttaaaattt 1740
tggtatattt tagtgccatt ttgcacatag gttataagca acagataatt tctgtaattc 1800
ttagaatatc gattaaactt gttaaaatgt agatattttg aaatctcaca caggacacct 1860
aaattatgta aaatgttata aactttatga tttacagggg ccctggagat ggaagtctcg 1920
aaaaatggtt gcctttattc agtattagtg cattatcagg gattccagat ctcagttaaa 1980
atgagagaat ctgaatctct aggcattgat gagtgtttct gaaattcaga ttcaccagaa 2040
agaaattgaa agcaaagaga agacagtgtt gtcaaattat catataattc agctaaaaaa 2100
aaaaatcatg gtacttaagt gggagctaga gcacatcact gcctttaaga agatatttag 2160
gggaataaaa gaggtctggg acctcggagg tgaaactgag agaaagacaa agggacttca 2220
aatcaagcat ttgaaagagc caatgagggg ccagatgtgg tgactcactc ctgtaatccc 2280
agcactttaa gacgccaagg cgggatccca tcacaaaaaa aaaaaaaaaa aaaaataaaa 2340
aaaagctggt cctcgtgcca tcctgggtga tctagaacct gggacctgg actctgtctg 2400
ctcaggtcct tttggccaga tcttttagac agacaacttt gtatttggtc agtctggggc 2460
aggtaacaac tgggccaagc gccactacac agagggcgcc gagctgggtg attctgtcct 2520
ggatgtggta cggaggaggc cagagagctg tgactgcctg cagggtttcc agttgacca 2580
ctcactgggc gggggcacag gctctggaat gggcactctc cttatcagca agatccgaga 2640
agaataccct gatcgcatca tgaatacctt cagtgtgggt ccttcacca aagtgtctga 2700
caccgtggtc gagccctaca atgccacct ctccgtccat cagtgtggtag agaatactga 2760
tgagacctat tgcattgaca acgaggccct ctatgatata tgcttccgca ctctgaagct 2820
gaccacacca acctacgggg atctgaacca ccttgtctca gccaccatga gtgggtgtcac 2880
tacctgcctc cgtttccctg gccagctcaa tgctgacctc cgcaagttgg cagtcaacat 2940
gggtcccttc ccacgtctcc atttctttat gcctggcttt gccctctca ccagccgtgg 3000
aagccagcag tatcgagctc tcacagtgcc ggaactcacc cagcaggtct tcgatgcaa 3060
gaacatgatg gctgcctgtg acccccgcca cggccgatac ctaccgtgg ctgctgtctt 3120
cgtggctcgg atgtccatga aggaggtcga tgagcagatg cttaacgtgc agaacaagaa 3180
cagcagctac tttgtggaat ggatcccaa caatgtcaag acagcctgtc gtgacatccc 3240
acctcgtggc ctcaagatgg cagtcacctt cattggcaat agcacagcca tccaggagct 3300
cttcaagcgc atctcggagc agttcactgc catgttccgc cggaaggcct tctccactg 3360
gtacacaggc gagggcatgg acgagatgga gttcacccag gctgagagca acatgaacga 3420
cctcgtctct gagtatcagc agtaccagga tgccaccgca gaagaggagg aggtattcgg 3480
tgaggaggcc gaagaggagg cctaaggcag agccccatc acctcaggct tctcagttcc 3540
cttagccgtc ttactcaact gcccttttcc tctccctcag aatttgtgtt tgcgtcctct 3600
atcttgtttt ttgttttttc ttctgggggg ggtctagaac agtgccctngc acatagtagg 3660
cgctcaataa atacttgttt gttgc 3685

```

&lt;210&gt; 332

&lt;211&gt; 1574

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 332

```

gcattctgga ttttcagatt atgtatatgt actacaggtt gaatatccct actatttttg 60
caacttccta tgagtctaata tatttaagaa gaataaaaat tttagccagg tgtagtgtg 120
tgattctgta atcccagtta cttgggagac tgaggcaaga ggatcactgc ttgagcccag 180
gagtttaagg ccagcctggg caacatagca agaccttgtc tcccaaaaga aaaaaaaaaa 240
ggattttttt taaaaagctt atatattata cagtggtaag ttttattaag gtatacatat 300
tttgaattct atcccaaaag ttactgaaat ttgaaaaatg aagtttgtat ttttttttca 360
tttttatgca taactttcatt ttaagcaatt tatattatag aaatttaatt ttgtattttt 420
agtatttcta caatgtgttg tcatgggtct aatatattta gagccattc cccaactaa 480
tcagcagaac tgataatgga actgctctta ttgaagttgc tgtagtctgt cctgtagtga 540
ccttcaggct ttaacctcc agctttagtt aaattaagca ggcacagacc tttgctatgg 600
aaacgataca gaaacataac adacaacttg gcttactttc ttctgcgaag cagaggggtg 660
actgaagaga ttactgatac tggtgaaagt ttttagagac tagtgtaaag agtagtagta 720
atttatctt tgcctacaac ataatgctt ctctggaaat cagatgggat aatagtctaa 780
ttagtttatt tgatcttcc ttaaaagtct ctcagataga aaggcatagc cctatttttc 840
ttatggatt atacatctgg aacagatgtt ggtcaaaata tgtgttatga aatatattcc 900
ctttgaaatc ttatatgagt gattaccttc cccaacatc agtttatttt atcaaagtat 960
aaaaagcaag tggcttatga ctttgtgaag ctcttatata tgcagccat ctaatatgac 1020
taggattctt tggatatagag tacttgccag tatgttattt gatattctgga taacttaata 1080
ggtaatagca aactttttta tttatattct ctattttaga ttttaactacc tcattttgac 1140
gagctacttt aatgcctata atttttttgt ttgttttttc tttttctata taagagcaaa 1200

```

```

ttgcctacag ttcttttaga aataatgtat tgactaactt catgagttat tttgcttcac 1260
caaattgtac tctgttattc taaaatttat tctttcaaca atgattgaat gcctgtaatg 1320
tgctaggcgc tctgctaggc tctggagata acaagatgga tactgtcctc ttcacagtgc 1380
tcacaggcaa gtggtaaagt tgttgcgtgt tatttctcca cttgatgaac agttgggtcat 1440
gtagaataat ttgttaaatt tatgattaaa catgaaagag caacagggtat accaaaaagg 1500
aatgactaat cactgaatag atgaatgtga ggaagttgcc taatcattgt tagcttcaga 1560
ttatctgtga actg 1574

```

&lt;210&gt; 333

&lt;211&gt; 1434

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 333

```

agatgttgca gtgagcccag atcgaccat tgcagtcag cctgggtgac ggggcaagac 60
tatgtgtcaa aaaaaaaaaa aagaaaaaaa agaaaagcca gagagttaat gccctgggac 120
cagtgctcag ccagtgtagg atgggaacca ggcataaat ccttcaatat ctttgagccc 180
tggatggaac aactttgaaa tgtattccac atcacctccc agagggtccc agtgggggtca 240
aatcctggtt gcctggagtg gtaagctgct cactgaagcc ccctgtgtgg cctcctgcct 300
ttccatgaat catttctcca ctccccatt ggtgttccct ggaatcatct cctaaataaa 360
caacttgcaa tctgtccct ctttgagcat ctgcttgggg ttgggggttg ggagtgcaga 420
cctaaacatg atctcttttc cactccacac tagtaagatg agtttctgtc actggcaaac 480
gagttctgac tattacctcc ttctgagatg ataattccta aaatgtattt ggggaatttc 540
ccacctccac ccactgcct atgtcatcaa tatgtagatt tcttaaagtt taatgggtatt 600
ctcttatcaa cctcaagttt cacaaaacac tgcactttca taaggatatcc ccatgactga 660
cagatcgccc gttcaaaaaga agagaagtgt cagagatggc tctgctagac tcacttattt 720
ttcaatagaa tctgggttag gatggtgtgg ttgggagatg cttctggaac tctgggaccc 780
acaagcctgc gtgttgcatg gtggagtatt aggacaactt taaaacagtg gcaggtggag 840
gcttctctcc tcttgcagt tcatcctcca ccaccccaa cgtgcttaat agatattaaa 900
tgaataatgg ggcgtggcat ggtggctcac gcctgtaatc ccagcacttt gggaggctga 960
ggcaggtaga tcacctgagg tccggagttc aagaccagcc tggccataga ggcaggagaa 1020
gcacttgaac ctgggaggca gagtttacag cacgctgaga tggcaccact gcactccagc 1080
ctgggggaca gagtgagact caaaaaataa taataataat gatgatggat ttattccttc 1140
caactgcaa ctcacaaaaa gaagaccaag acgcatacaca atgttgtggc cacaatcacc 1200
acagtgcaga taatgaatat aatctactct tgagccagcc acctccacta aaccagcgg 1260
atcgcatctg gtgtttcact tccgggatgt tttagtggtc gtggtagatg gttgcctgac 1320
tgatggctgt ttctactgtg tttcagggaat atagagatgt atacggatga cctctaaatt 1380
aattagtgtg caattctcaa agagccaaac tctaccccaa aagctactgg aatg 1434

```

&lt;210&gt; 334

&lt;211&gt; 2300

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 334

```

ggaggaaagg ggaaaccgga ggaagggcct cgggcatggg tatgctttga gggctgagag 60
gagggacagg agtgatctga ctgcactggg tgatagggac tgggggctg ggagcaggct 120
gttctcagac gatagagggt cttggccgac acgtttgaac ttgttctgc agaccagggg 180
tccagagaag gtgctgtgtg gggaggaaag agaattggag ctggggagac ggggcttccc 240
aacaccctgc actgtgttgc tggaaagggtc ttgtttgtca cctgcctggg acatagatgg 300
tgcagtatgg atagtgggtt ggagcctggc ctgaggtcag ggaggagccg gaagtccctg 360
gcagtactg aggttgttgg ggctcatgcc tgtgagtcta ggaggaaacgt gagcccccg 420
gtgaatggag agagcacacc tgtggctggg tgttcttgtt ggggtgtcgc gacactgtca 480
atcaccatgt ccgccctgcc tctgtggcg gctgatctaa tcaccataga tctgaattct 540
gaatggaggg ttggaggggg gagagaggat gaaagtgacc tgcactgtct aatccgagga 600
gagaaagggt cttctagaat aagccgcgtg cctcaagctg gcttgtggaa tgttcagact 660
cggtcctggg aaggcagtg cgctgggggt tcacccctg ctgccaggaa ggctctgcgt 720
gctggaagcc atggtgcatc tgcaggcatg caggcctcac acccccggt cagacactgg 780
cgcgagcgtg aataccacag cctggtgtca gcctactcga gtaaactgtt ccatggaagt 840
agagaggact ttaaaaaaat agactgtgtt caccattgtt ccaagttggg atctccagaa 900
gcaaaactg ggtcagagtt tggggtgtaa ggcagttttt aggagtgaac gtttgggaaa 960
ggaaacagga ggcagtgaga ttcagagagg aagagatcga accatgatgc aggccagca 1020
aagccaggc taaccgcgtg gggcgtgtga gctgatgcc agtggagttg cctcatgtca 1080
gggatgtggc cagggttcta gactcctgcc tgcgtgccca ccagatgtgt ctgatttgcc 1140

```

```

caggaagggc ctgactctgg ccagacagcc ctctgcaact caggctgcca gaagttctga 1200
cacctggcca cactgcctgc agctggggag cacgtccttc tggcaaggcg gattccaggg 1260
cgcggtgtaa tctccaccac cagcgccgtg actatgctga gtcccaggcg ggtgctccct 1320
gccacccgcc cccacccctg ctgcacattc cttcccagta aaaacgcaca ccctcaggac 1380
agagcagtat cttctaaagg gcttgccctt cacttggttc taccagaga tagaaccatt 1440
ctaagcagta actcacatgt atggatttct tctggcagat ctgcatgagc tctcagtgt 1500
ggtggggaag gcggggacgg caaaactgcc atcgcatctc cgagggtgtg cccgcctccc 1560
tcaagctccc gcacgggttc cccaggggtt cctcatgccc ctgcccctgg cctggttttg 1620
gttcacctgt ttcacctgtt tcccctgacg cctgctccac gcttgggctt tctgctttt 1680
atcttttctt tattcttaat ggttgactta ttttctttac tctcttgtgt ttttcaagtt 1740
ttaattaatg agactatatt acttttagtag tggaacacag gttgtctaac attttattgt 1800
gcacattttt aaacatacag caatgtttaa agagggtttac ggtgaaaacc tgtctgctgt 1860
taacacttac gtatgcctgt gtccctacca cctgtcacct ctctctctat ctgtccatca 1920
atacaccat cctcaattta tctgtttttt ttttttttgc tacattttca aataaatttc 1980
agatggcaat gcatttccca ctccatagt cagcatgcat gtcattataa ctagagtcca 2040
atactagctt actgttttat tcccttgaag caaaatttgt agtgtgaaac gcacaagtac 2100
taacagcacc tttgctgagt gtggacaaat atggacattg tgtgtaactc aaatccctgc 2160
cacagtagag gacatcacca gcctccagaa agctcaccat gcctcttccc aggcagtgtc 2220
tgacccccc tctccaaaca tatccactat ttttatttct tccaccataa tgtaacttac 2280
ctgtttagaa ttttatatcc 2300

```

&lt;210&gt; 335

&lt;211&gt; 1963

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 335

```

ctgtcccttt ctttataact ctcagcatct ggttcttctt ttgggattct gtgtggcttt 60
gttcttgtcc ttttaggtttg ttcattaatg ccagtttgcc ctgtccctcc ttacagcttg 120
cacatctgta atggtctagt tctgtgggat tttgcagata gttgtatatt ttggccaagg 180
tatcagtgat acggttacct ttgggcaggg ataactgcta ttcggttggc atgatatttt 240
ttccttctat aatgtatacc ttagtgattg ttttaaagtg ctgaatttat ccttatgta 300
tattacaacc atgaagaata taaatcagaa gtccctccatt tgggcagctt ctatatttaa 360
cacttatatt aagacctctt tactgtctcc tcttcccaga attagagagt tgatgtagtg 420
cttaatagac atggcttatt gtatgctagg tgaacttggc aattccatag ctatgttacc 480
ctcacagaaa gttatttctt ggagagatta ttaagtgttc tgatctttca tatatgcttg 540
agagatctaa gattcttcca caaagacctt atttcttcag agaaaactat agtgatgcca 600
gagtcttttt tttttttttt taacaacttg tgatttttgt gcacctgtgt tgtatgtgtt 660
gccattatct cactttaggg acgttggata aactggcgta tttgtgcagc ctcatttaag 720
tagtggcaac cattaatgac ttgtaccacc aagtttttcc agataatttc tgttttttcc 780
acctttctta catgttcttt ttttagtcata ggtacttggc ttactcaagg gaggtgtagc 840
gtaagataaa gataatggag ggtgttccct ttagaatagg tacaatgct gcaggcttta 900
tcttgggcag agcaagtagg gttttggctc tgagtaagtg agtgaggtta ggtggagctg 960
cctgtcttcc agcctgtcgg atacaactga ctcagtcctg gttctcaaca gtttttgaaa 1020
agcccatttt tctatcccac ttactcccac ctgcagttct ttaagaacgt agtttccagg 1080
atgtcaggca actcccact cctccatttc ctgtttgttg tcttcattga gagacgctt 1140
aaacaggaat tccctgggaa gtgcaggcta tagcgggtgg attccggggg tcattagtcc 1200
attattgaag ctggggaatc atgtactata aaaggacctc ccttccgttc tgttgtctcc 1260
tagaaactat tactgatcat aaccaagcag taactgcaac tcagggtgtg tgacttgtgc 1320
cctttgtctt tagagactga aaattatttt ccttcttgtt gcctcagttt ctattagttg 1380
aattttagag ctcaacatca agatttgtga caaaattaac ttggactctg taggactgat 1440
tcgtttgaaa tgcaaaagta gtgaagaaca taaaacagac tccctatctt ggccgccagg 1500
gggtgccctt tcccttcgct ttactgtctg gcactcccac ccgcattcag ccattttaga 1560
cagattgttt ttgctcccag ctaactccat tttgtatttg tgacgcagga ataaaaaag 1620
gagttaggca aaggaggagt ctggttttga gagggaggga gactggctga ggcgageta 1680
cgtactcttt tactcagcag ttgctcatca gggacacacc ttgctgcagg ctgcctgcat 1740
cctgagcaat cgatgccgca agtccttgcc agcggagcac agagcaaaat ggtttggctg 1800
ccggacacct actaacagtg acagagtgtc agcttttgag gcagcaggcc agggcatccc 1860
ctctgcctca tctagactct aatcctgggt ttaggtgttt ttgctacaga gatgtttagg 1920
gcagttttct taattatagg atcagataag aaaagatacc ccc 1963

```

&lt;210&gt; 336

&lt;211&gt; 1514

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 336

```

gcttgtcttt gctttggttt ttgatgtttt tcattgtacc aaaattctta attttaatgc 60
agccaaacat tttattcttt tcccttatat tttatatgta ttgtaactca tttgagaagt 120
ctttcttttt tccaagggtca tgaactgttc atctatatatt tgtctaaaga tttttaataa 180
ttgtttttct atatttagct attcattctg tttggaaattt atttttatat atgatgtgag 240
gtagggatct aattttctgt gtacctgcat agtcattttt ccagcacta ttcagtgact 300
cttgtcctaa ttaatcaatg ccaccaatac aatcatctct ccagtttctt tatattcatg 360
gggtctgctt gtagctatct tttctttcac taatgtattt ctctgtcact gccccaagt 420
cctctgtctt catgattaca gccttataac aattcctgac atctagtagg ccagattcct 480
tccaaaaaac ctcccacatc attgttttaa caaaaccctt ttgggatttt tcttattgag 540
ttgcattgag tttatagaaa tttggaaaga gataatttct ttaaaaaat taagtctttc 600
catctttgaa cataacgtgg gttgagcatc ccaaaacttg aaatgctcca aaattcaaaa 660
ctttttgagc actgacgtga tgcctcaaagg aaatgtttat tggagtgttt tgcactctcg 720
agttttggat ttgggatgct caottgggtga gtataatgca ggtattccaa aatctaaaaa 780
caaaatttga aacacatctg gtccaagcat actcaacctg tacatctcta cacttatttt 840
tcttctttta tattgttcca tgaatttata attttttaca taaatatcgt gcataatatt 900
tgtagatttt atttctaact gtgttgtgga ctgtgttgct attataaatg tattttctca 960
aaaagtttgt ctgttaattg tttttagtgt acgtgtatga ctgggattga ttgtatgact 1020
taatctttta ttcaacaatc tttttcagcc tttttttata agtttataaa aaatgcacagc 1080
aaattttatt ttttaaaaca accccatcgg tctgcccctt tccctcaca ggagtataat 1140
agccatgaat gtagggatct tgtgtttctc attcagttcc tcaggaggta ttttttggat 1200
gaaatactta ataaaatctc caatttgggg ctgaagaaac agtgccact cactgtatca 1260
gagtggtttt attaatcgtt aactgctctc tttgctgaaa aagggcttat ttttttcacc 1320
tggcagcctg gtctcccaca ctcaacctga ctacagattc ccaaaatagc tgggctctc 1380
catgctgcca ggactttgtt cccttgtgtc ttctaagcca ggcaaacgtg tctgtcccct 1440
tcagagactc gccttgggtc cagctcttcc aggaagcttt ctggatttc ccataacttc 1500
agacagatgt gtcc 1514

```

&lt;210&gt; 337

&lt;211&gt; 1322

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 337

```

gaatcaaac ctgattcaaaa ccttcattcc cagtttctaa tgcagggatg taacagatgt 60
tcttacattt agactgttat cttgatgggt ggcacgtcat tatcgtcgac tgcgtatgag 120
gtgcagatga atgctgctgg gagccatgtg tgatagtggg ggaagttcta attggagtgc 180
tctcagatca gaaaatttaa gaattttatc atgttttagg agatagcata ttttnggaaa 240
gtcagtgtgt ctgcaagctg ctgaaagatg ttctttaga cttgttgaag aattatgaac 300
tgcaggatgc cagtttttga aatcccaatt cctttggtta taagtataaa aatagccact 360
ataaattgag ccccaggtag tgttaaaact acttaattct cataagaacc ccataaggta 420
gtcaatgtca atatctcttt ttagcatttt gggcaaagta gatccagagt gattaccag 480
agtgattgat tattgactgt aggtggaaga gccattatc taccgttagc tttggtagtc 540
ttaaccgcta tggcgcantg cctctgcagt ttggatggct catacaaaaa tccacttgag 600
gactgggtga tacttttttt ggtaagacag gttttcttcc atctaagag gtatgttttg 660
gagtctttat gtgaaacatt ttcttctaaa ccatgattat taagggcagg agctacgtct 720
gtgtgttcac cattttatca tcaggcttcc agtgggtgat aataaatatt tgttgattgg 780
acttggattc ttgagcgggg gcatccagtt ggtatgggtta gggaaacttt aagagaaaca 840
tttctgttat gcaaaacact cttaaaggat gtatctttca aacatttctt tgggtgctgt 900
caggtcactt actactgggc taataggagt ggtggtttcc tcttgttaa agttgtctgt 960
tacctgagag tatttgggac tgatagagaa gctggtggtg ggggtgttat ttgcagagaa 1020
agcagctggc actaagttta caggctaatt agaaatggtc acgcctctaa tcccagcact 1080
gtgagaggct gagtttttca gattacttga ggtcaggagt tcaagaccag tctggtcaac 1140
atggcaaaac ccgctctcta ctaaaaatgc aaaaatcagc tgggtgtagt ggtgctgccc 1200
tgtaatcca gcttctggga gttgaggcga aagaattgct tgaacctgga aggtggaggc 1260
tgcagtgagc caagattgtg ccactttact ccagcccggt caacagagca agactctgtg 1320
tc 1322

```

&lt;210&gt; 338

&lt;211&gt; 1857

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 338

```

gtcagtcaga aagaaaagac cttcagacca gaattttctc ttcccaactt gctttccata 60
ccctgtggga ccctaagaca acagaaaact gagttttgtt tcaactttta ctgatgtttt 120
tcactttcac ctgatttggg cccagtttct tcatacatgg gaaacagcag ctgcattaaa 180
gcagcagttc tcacccggcg gttttgccct tttagcggaca tcgtctggag acatttttgg 240
ttgccaggat ttgctgggtg gccttactgg catctagaag accgacgctg ctcaaccctg 300
ttggcgcgct gaacccaaat gccagtggca gtgagcttgc aaatcgctgg actcatgatg 360
ctttgagtg cttcaggact ctggaggtcg atgctgggtt tctctgctgg cttctgctg 420
ctgatgctct tccccctctc gagctctttt acggaaagct tcgtggcaca cttgctgctt 480
ttcactgaaa ccaggctgtg tggtagtag aagctgcgta ttcacattta tttttattga 540
ttgatggatt gaggtgctg tgcagtggtg ttagtagctc cggctacagg cgcacgccac 600
catgccagc taattttttg aattttttgt agagatgggg actcgccgtg ttgcccaggc 660
tggctctcaa cttctgggct caagcaatcc gcctgcctca gctcctgaa gtgctgggat 720
tacagcgctg agccagcgca cccatcacac acttattttt aatggtcctt gaggttaatg 780
gcagctttga acaatcctgt ccaggagtgt aaggaggaaa aacctcactc catcttccag 840
gagtgttaagg aggaaaaacc tcaactccatc ttgcaaaac gcatgtgcca ggagtgttgc 900
tcaggaaaca cgcgattctc tcggatgcta agtgcagagc cggggaaccc tgcaccagca 960
agccctgtcc tgggagctgc cttcaatcct gtctgtgctt ccttccctgg tctgcacac 1020
ggaagtgttt ggagttggag gagagcctga tgtttggatg ggactgaagt aacatgggta 1080
tagatttttt tccccctatt tagactgggt tgttttatte ttggagtccc cagagctctt 1140
cagggaatt atatagtttt attcagctgc cttttttttt tttttttaag acgagtttgc 1200
ctctgtcacc caggctggag tggcgtgggt cagtctcagc tcactgcaac ctttgccctg 1260
cagattcaag tgattcact gccccagcct cccgagtggg tggggttaca ggtacaagcc 1320
accacacctg gtttaatttt tgtattttca gttagagcgg ggttttgccc tgttgccag 1380
gctggtcttg aactcatgac ctcagggtnt ccgccacct cggcctccca aggtgctggg 1440
attacaggcg tgagccacca tgcattgctt tattcagctt tttaaaaaa tggtagtga 1500
gtataatttt ttctctttaa aatactcagt ggaaatgaaa accacctttt tttttttg 1560
accttttatg tagtttaaaa cttaatttgc ttcttaagt taaaattagc cttttaaggc 1620
tgggcatggt gctgacgcct gtaatcctaa cactttggaa ggccgaggtg attggaacac 1680
ctgaggtcag gaggtccnnn tcagccgggg gtggttggcg agcgcctgta atcccatcta 1740
ctcgggaggt taggtagga gaatcgctt aacccaggag gggaggtgga ggttgcagt 1800
agctgtgntc acgccactgc actccagcct gggggacaag agtgaaactc tgtctcc 1857

```

&lt;210&gt; 339

&lt;211&gt; 1290

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 339

```

aaattatcta acacaaagct gttttataat aaaaatgtta aatatcacat gtaacttaat 60
gactactgaa agtgaaaacc agaatggttg tgcgtgtact cattgcagtt tctactgatg 120
catattacgt gtacaccatt gtaacgtcaa aaaatcttaa gttaaaccat cgtaaagtcag 180
ggaacacctg tattacatac cttagcaagca tacagtttta ttcttttctt tacatgatct 240
ggctgttgtc agatggctga tgtttggtca gtattactag aaacagtatt tcttcagagg 300
tgagttaaca taagaacaaa aaagcacaag attcaatgca atatcagttc gggaagttag 360
ggagaatatg tgtgtctccac ataactttta ttggaaatag tgttcttttg tggaaattga 420
agtggataca catttaggtt gaaagtccct aaccagtcac atagtacttg taggtattta 480
ctatgcttca tgcataatggt actcttttaa aatggaaata agatagaggt ctaagcaaaa 540
aaaaatttat tattattatt ttttgagacg gactctcact cagtcaccca ggtggagtg 600
cagtgaagtg atctcggtc gctgcaacct ccgcctcccg ggttcaagcg atttttgtgc 660
ctcagcctcc tgagttagctg gaattacagg cgcacgctac cacttccagc taatttttgt 720
attttttgta gagactcact gtgttgctca ggctggtctc gaactcctga ccacaagtga 780
tccaccccg cctggcctcc caaagtgttt agattacagg cgtgagtcac gtcacccgtc 840
cctagactga ttaattttta tttatttatt tattttttt tgagacagag tcttgctctg 900
tcacccaggc tggagtgcag tggcgcgac tccgctcact gcaacctctg cctcccagg 960
tcaagagatt ctctgcctc agcctctgga gtggctggga atacaggcac gtaccaccg 1020
gtttcactgt gtttagcatg gtagtctgga tgcctgacc tcttatccac ccaccttggc 1080
ctcccaaagt gctgagatga cagggtgtgag ccaccgcgcc cagcaggact gattagttgg 1140
tgtttttttt tttttttttt tttgagacgg aatctctgtt gtcaggctgg agtacagtgg 1200
cgcgactctg gctgactgca acctctgcct ccgggttca agtgattcca ctgcactcca 1260
gcctgggcaa cagagtgaga ctctatctcc 1290

```

&lt;210&gt; 340

<211> 1925  
 <212> DNA  
 <213> Homo sapiens

<400> 340

```

gcctcgactg tgagcgcatg gaacagacag actcttcctg tgggaacagc aggcattggtg 60
aaagtaacgt ctgacagaag catgtgcact tcgggaagca ggctgcac ttacctgtac 120
agtatattgca ttccacagat ggaacgggtt ggagaagcac tttttcatac ttttgtgaaa 180
gtatacatgt tggccagtc tctcgtatct gtacctttgt ccctagtact gtaactgcc 240
atctgtctgt gtaagctgga atctgtggca actattacc cttgtgtgtat tccccagtg 300
tctggatgga tggagaggta ctcaaacaag ttactttcag ttgtcctgct ggattttaaa 360
aaaatagaaa aagaatctca aaactactgt tttacataga ttgtttgaag agtccttctc 420
cttgtgcttc tgtaccactt tcccagctct tagatgtggt agctaaaggc acggaattta 480
gaoggccttg taaatagggc atgaggaact catctgtgta ttgggatggg attagagaga 540
gaatcacgga aagaccaact catgaagtga acttgggttg atcttactca actagaaagc 600
ttgaaaacat ccctggggat tctgaaggct taattttgca aaggaggatg cattgtctga 660
actttgcaac ttcattccagt gcaagtttga tgcaagaatg tattaggaca taaaatagag 720
gctgacctta aaagggccag gacagaagcg gctgccagct ctgaatcttt aactgaaatg 780
cacatggcac caggaggtgt ctctcatagt tgggtgctag cctaaaacat cagaatagaa 840
cccaaagggc ttaggaaggc ctgccaggat aacaagaagg ccctgtatc attgtgttcc 900
atctgcctag gcctactcat ttttttagag aatgaatgaa gcaccaagga agagagacca 960
tgactctatc gatgacactg tttatagaaa cacaggagag gaagaatttg gaatgaaaag 1020
cacttcgtca gaaccttctg tgggagccat tgagagaaaa gcatgggtcca gtgccttctg 1080
agaaaggcca gagctttggg ctttcctgct ctgcttttgg gtcgtcaatt tgccatctct 1140
ggttctgtgc tataatcaga attgtaatta tgttctccag aggccaattt cattaactct 1200
gattaattag aatcagctag ccagattagt aacctctttg tccagccttg atttacagt 1260
cagggtaaag tgcagacctt aaaaacagct aagtacctag aagagctccc tgcaagtgt 1320
aatattaagg atgacctgtg caaaattata ccacaccag cactagtggg taattattct 1380
aaattattgc caaaaagtgt tttttaatct gtctttcaag tttacagaaa agaaagcagt 1440
aatgcattg atgtcatttt attatgtaca tatatcatgt gcattcaagc tgtgtgacaa 1500
gatatatcaa tataaaaaa aggtatatac tttattattt tttgaaaaa aggatattgt 1560
gatcaatttt accctgtaaa acatatttct gtatttatag gtcttaaa caagatatt 1620
ttttctatta caagtttatt taaaactgct ttctcaagtc gttattgata cagcaagtga 1680
acctgctgca gacagaagca gaggaagcc aagaacagcc tttactggtg aagaaaagaa 1740
tgaatgattc tttgtaggcg ccatcagcca cttttagaag ccatcagcca gtgtgttggg 1800
aaaagaggtt tgtcaagtgt tggcctatgg gaaggtggtc aatgaatgtt ttgatgaaat 1860
gaatgttttt gtataatggc cttaaacttt tctggaagta tttcaaataa attacattat 1920
taagc 1925

```

<210> 341  
 <211> 1106  
 <212> DNA  
 <213> Homo sapiens  
 <400> 341

```

ctcaccaggg cttccagtga agttacaatg ccctagtctg tgaattagtc tggaaacgtg 60
tttttccttt tcggatgtta gagtacctt tgataaacta aattttacta agctgaacaa 120
ctctgacagt ctaaagagct aatgtgggtt accaaaaggc ctgtacctgt aaacaaaaat 180
gcagggtgaa tgattatata tgtctatgga ttacctggac atactctcat ttgggttgtt 240
cttcaaagaa gcaagcagcc gatccctggt ttcataaagc taatacttca gttggaaaaa 300
ttaaacagga gcacaaagtc agggataggg gttagcagaa gagagaaata gtgtcacatc 360
aagggcagga tctcatagct aggggaacatt tcacaaataa ggtgagattt tgtaaccaat 420
aataaaaatg aatgttttta taagtaaata acttattttt catatggcta aagatggtaa 480
aatgacttca ttctatagcc attgtaaata agaatttgct attgatgaaa gaagttcaga 540
ttggcatttg aagtattgag tgtatgggat ctctaaggat ttcttagatt ttatatttaa 600
atatttttta aaccttagag gagtcaacaa aactggctct tgattttcag caccctactc 660
tcattgaaaa agcctgaaag gacctttcc cttataagta atttaataca atttctcccc 720
attttataga tgaggaaact gaggtcaga tcagatgaga actcacttaa atccactcaa 780
tgtgtagatg gttagagctg gactagcaac attgctgcag cccattgttg gcctctctct 840
tcactttatc attgcccag aatgaggata tgcagtaaag agaattcagg caagatacct 900
ctaagctgtt ttgaacctc tgatattttg tatttatgtg tttgtctgtc tccccctact 960
agaatgtaag ctcttgggg cagggacttc actgtatttt gttcatagtg tatccccaga 1020
gcctggacca gtgcttggca cataggagat ggcaataaat tcttgtagan ttaataaaca 1080
aggtgaagga gagatctaag gaaacg 1106

```

<210> 342  
 <211> 1859  
 <212> DNA  
 <213> Homo sapiens

<400> 342  
 agagtgttct agcctgctta tgaagtccag ctgtagtgtt gttcttatct tctggttctt 60  
 tgttgatctt ctagttgttc tatcccttat tgaaagtggg gtactggagt ctccaactga 120  
 catacttttc ttttagcttt ttatttttga aaatttcaaa catatatgaa agaagagata 180  
 atgtacttac tcatcaccca gcttcaacat ttatcaacat cttgccaatc ttactgaatc 240  
 tatccttcct tacctttttt aaaaatgttt cctagagtgt gtcaaagctc atcccagatg 300  
 tctaatagtt tctagtaaat gcttctgcac aattctaaaa gacaaggatg tttttaaacc 360  
 cagccccgac actatcatat ctcacaagat tcatgctaata tctcagtggt cttctagtcc 420  
 caagtccatg ctcaagtgtc cccccctgtc caggcaccct cttcaggggt cctccaatgt 480  
 ttcatagcag agaaggggcc ctgagagtgt ggcaccccg ggcagagctgg ctggaggggg 540  
 cgttggaagc gaaggcgggt ggccagacgt gtgaggggtgc aggtctgcac cagctcctgt 600  
 ttgggtctgtg ttcaggaaca aatgtggtat actggggctg gcggtctgag aagatggaaa 660  
 ctgttagcgg ctaaggaggc ccaaggtgtg cagtgcacc aacgtggagc tggtgacacg 720  
 cacacgcaca gggcacctct ctgatcagga caagtgcagg agcaaagcgg ggaagactcc 780  
 attccagtcc ttctgggga tggcgagca gcattcctcc cacacgggg ccccggtgca 840  
 gcaggcagcc agccccacca accccacagc catctcccct gaggagtact tgcaccccaa 900  
 cttcagcctg gagtacgga acattggccg cccatcgaga tgtccagcaa agtacagagg 960  
 ttcaaggcaa cactgtggct gagtgaagag caccgcctct ccttgggtga ccagggtgac 1020  
 ccatcatcga cctaattggc atcagcaacg ctcactttgc caagctgcgc gacttcatca 1080  
 ctctgcgcct tccacctggc ttcccctgca aaattgagat tccccttttc cactgtctca 1140  
 atgcccgcac cacttcacg aacctgtgtg gctgtgatga gcccctgagc tccgtgtggg 1200  
 tgccggcccc cagctctgct gtccgcgcac cagggaaccc tttcccgtgc gaggtggacc 1260  
 ccacgcgtgt tgaagtgcc aacgggtaca gcgtgctggg catggagcgc aacgagcccc 1320  
 tccgggacga ggacgatgac ctccctgcagt tgcacatcca gcagagcctg cttgaagcgg 1380  
 gcaactgaggc ggagcaggtg accgtttggg aagccctgac caacaccccg cccggtgccc 1440  
 gccctcctcc ccaggccacg ttttttgagg aacagcttca gctggagcgg gccctcaagg 1500  
 aaagcctgca gttgtccaca gagccgaggg gccaggatc ccttccaagg aaacccccnc 1560  
 ccccggtgcc acccagtttt gaagagcagt gcgcctggcc ctggattttt tttcacggga 1620  
 gcaggaggag cggggggcggc gcgggcagca ggaggaggag gacttacagc ggcctctgca 1680  
 gctgtcactc actgagcact gagccatagc cccgggaggg ctggccaggc cactccctgc 1740  
 ccgcttttgt aattttattt ttataaaact ctctgctgct gagcttgggg cctggagccc 1800  
 caggaatgag caggcagggg agactgagat ggaaatnaag agactgtcgc aaaaaaag 1859

<210> 343  
 <211> 1009  
 <212> DNA  
 <213> Homo sapiens

<400> 343  
 gctttctaaa gagaaactga ccactcaaaa gatgatggaa gagctggaaa agaaagaaag 60  
 aaatgtacag agattaacaa aagcattgct tgaagtggat agaagaaatt caattttgct 120  
 ttgaaaggat gattcactat aaaatgctta ttttatagat attaatagag cattttcaga 180  
 ttaaagacat gattttgata tgcctgttaa ttaattccat tgtttcttac caaaattatt 240  
 ataaaaagac aaacctttat ttattttgtg ttttgaata cagtttcaca taattatagt 300  
 acagtatata tttattatat ttattagctg gcattcatct ataaaaaagt ttttttccca 360  
 tcaccccagg ctattgagtt attctgaaat acagttccaa ttggaaagct aattaaagt 420  
 acctttaatt agcagttttc aagataagaa ggtagcagtt ttggggatca gcaattcaga 480  
 gttgttgggt ttttcttttt ttcttcttct ttgattttat acttgttatt tctttgtctc 540  
 tgcacccgaa gtttgtgggt cctatcaaca ttaacataga tgcttcccc caccaatatg 600  
 caaaaagtay ttcaaagta attaaaccac tattgtact aacaataaaa accacagagt 660  
 gaggttcaaa gttacttttt agttcttttt atccttggaa taaatctcat tatagaaaaa 720  
 tacaggctgg gtatgggtggc tcacacctgt aatcctaata ctttgttttg ggaacctgag 780  
 gtgggcagat cacttcaccc caggagtttg agaccagctt aggcaatgtg acaaaacct 840  
 ctctctacaa aaaatgcaaa aattagccag gcacatgggt gtttacctgt ggtcccagat 900  
 attcgggggg ctgggggtggg gggatcccc gagcccgagg aggtcaaggc tgcagttagt 960  
 agtcatgatt gcgcactgt actcagcct ggggtgacaga ttgagggccc 1009

<210> 344  
 <211> 1445



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 344

```

tgctttgttt ccgtagagagc aacatgcggt aaattgtaaa gctaaatttt aaaagtgcaa 60
aaaagtacca ataagacctt attccactat tttttcatgg acctocaaag ttaaattgta 120
tggaaatattc tctcctgcca gcctttgaca ttagtttttt ctttcctgag aggtagtaga 180
ggtagctttct gcctccttat ctttcatcat agagtggcga aacattgggg atagtattta 240
tctggtagcct tttcccatct cccttgagtg tttttgtgga tcccttgcca ccatatgctt 300
attcagtgcct gccttggtgt tatcgccatc atgaatagag tagttgttac atcattcatg 360
ataattattc ttcaaagggt aatcatggat agcttagtca ctctaaatt tattagaatc 420
atactatgac ttgaggctga ctgagctgga gagattgaat atttacacat tgaaaggtaa 480
taatgctcca aaataaaaaa gcaactgaca aaggactttt tgttttgttt atctgcagtg 540
tatttcttat tctcagtcct ctgtttatga ccagtgtttt ggcttcaagg atgtttattt 600
agtacttaat ttagttagaa ggaagatacg gagatatggt tcctgccttc cagtaacttg 660
ttatccaatg tgaaaactag aatgtttatg taagtagcag cctaactacg gagaacccat 720
tgagcagagt gtgtgtgcat atgtagggtg tgggtgctggc agtaagggaac ggtgatggct 780
gtgactagaa agacttaatt catgggtcac tgaagatccg cctttgacta tttactccga 840
aatactctgg gttgggaata tctaggtagg atgctgtgtg aaagaataca catagtgcag 900
agtggctgat gttagcctaac ttatatattg tgggttccat agaagctgtg agttccactt 960
cccttgggat aaggaagtaa aacttcagat gaccttcaa gactggctag gattttgcta 1020
gtagaataag agaatggagg gtattccaca tgaggatagt ataaaagcaa aggtagtatg 1080
aaagtactag gcctgtttgg aagtagtagt ttgatttgtc tagagtagta tgctctatgt 1140
gagcatgggt ggaaataaga agtggaanaac tgatgatagt ttatggaaag ccttaaatatc 1200
tagcccaaaag catccanncc cagttagctca cgctgtaat cccagcactt tgggaggccg 1260
aggcgggcag atcagctgag gtcaggagtt caagatcagc ctggcttggg ggctcgacc 1320
tgtattccca gctacttgag aggctgagggc aggagaacca cttgaacctg ggagacggag 1380
gttgacagtga gccaaagatca caccactncc actctagcct gggtagacaga gcaaaactgc 1440
atccc 1445

```

&lt;210&gt; 345

&lt;211&gt; 1682

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 345

```

agcagcgagg taagacgcta tccaccaagc ctttctcttc cttctttccc gggatccctg 60
gatctacggc tgtcttctaa tggagagttc ctatgaaacc cttgatccct tgacctgacc 120
tcatgtctgt agacccttca aatgaagacc cttogaacc cttgatctct cctgattctt 180
ttgaccctta ttcataagatc ccgggatcca gggctaccct ctgatggggg ccccttctgt 240
aatgacctcc attctctga cctacgtgta cttcgttctc tcaactgggc ctgcgcatcat 300
ggctaatacg aagcccttcc agctccgtgg cttcatgatt gtctacaact tctcactggg 360
ggcactctcc ctctacattg tctatgaggg gggccctctg gatgccgggc ttaattttct 420
gtcagcagga taaggagcag gccatagagc cagagcatgg catttctcct ttccagagag 480
ggtcagatcc atgtcctcag cttagcgaagg ggagggatgg ctgggaaggg agaactctgg 540
tggctaatc caccctctt cccagttcct gatgtcgggc tggctgagca cctataacctg 600
gcgctgtgac cctgtggact attccaacag ccctgaggca cttaggatgg ttgggtggc 660
ctggctcttc ctcttctcca agttcattga gctgatggac acagtatct ttattctccg 720
aaagaaagac gggcaggtga ctttcttaca tgtcttccat cactctgtgc ttccctggag 780
ctggtgggtg ggggtaaaga ttgcccggg aggaatgggc tctttccatg ccatgataaa 840
ctcttccgtg catgtcataa tgtacctgta ctacggatta tctgcctttg gccctgtggc 900
acaaccctac ctttgggtgga aaaagcacat gacagccatt cagctgatcc agtttgcctt 960
ggtctcactg cacatctccc agtactactt tatgtccagc tgtaactacc agtaaccagt 1020
cattattcac ctcatctgga tgtatggcac catcttcttc atgctgttct ccaacttctg 1080
gtatcactct tataccaagg gcaagcggct gcccctgca cttcagcaa atggagctcc 1140
aggtattgcc aagggtcaagg ccaactgaga agcatggcct agataggcgc ccacctaaat 1200
gcctcaggac tgcaccttag ggcagtgtcc gtcagtgcct tctccacctc cactgtgac 1260
caaggcttat gtggtcagga ctgagcaggg gactggccct cccctcccca cagctgtctt 1320
acagggacca cggttttggg tccctaccca cttcccccg gcagctccag ggatgtggc 1380
tcattgtctg ctgccactcc agagctgggg gctaaaagg ctgtacagtt atttccccct 1440
ccctgacctta aaacttggga gaggagcact cagggtggc cccacaaagg gtctcgtggc 1500
cttttctctc acacagaaga ggtcagcaat aatgtcactg tggaccagc ctcactctc 1560
caccacacac actgaagcag tagcttctgg gccaaaggct aggggtggcg ggggcctggg 1620
aatacagcct gtggaggctg cttactcaac ttgtgtctta attaaaagt acagaggaaa 1680

```

cc

1682

<210> 346  
 <211> 1164  
 <212> DNA  
 <213> Homo sapiens

<400> 346  
 gccctgcaag aagcctcaag cctgagcgtg cagcaggggc ccaacttgct gcaggtgagg 60  
 cagggcagtc aggcgaacct ggtctgccag gtggaccagg ccacagcctg ggaacggctc 120  
 cgtgttaagt ggacaaagga tggggccatc ctgtgtcaac cgtacatcac caacggcagc 180  
 ctacagcctgg gggctctgcg gccccaggga cggctctcct ggcaggcacc cagccatctc 240  
 accctgcagc tggaccctgt gagcctcaac cacagcgggg cgtacgtgtg ctgggcggcc 300  
 gtagagattc ctgagttgga ggaggctgag ggcaacataa caaggctctt tgtggaccca 360  
 gatgacccca cacagaacag aaaccggatc gcaagcttcc caggattcct ctctgtgctg 420  
 ctgggggtgg gaagcatggg tgtggctgcg atcgtgtggg gtgcctggtt ctggggccgc 480  
 cgcagctgcc agcaaaggga ctcaggaaat gcattctaca gcaacgtcct ataccggccc 540  
 cggggggccc caaagaagag tgaggactgc tctggagagg ggaaggacca gaggggcccag 600  
 agcattttatt caacctcctt cccgcaaccg gccccccgccc agccgcacct ggcgtaaga 660  
 ccctgccccca gcccagagacc ctgccccagc cccaggcccg gccaccccgct ctctatggtc 720  
 agggctctctc ctgagccaag cccacccag cagccgaggg caaaagggtt ccccaagtg 780  
 ggagaggagt gagagatccc aggagacctc aacaggcccc ccccatngg tacacacaaa 840  
 aaagggggga tgcagggccag acacgggtgt cagcctgta atcccagcag tttgggaagc 900  
 cgaggcgggt ggaacacttg aggtcagggg tttgagacca gcctggcttg aacctgggag 960  
 gcggaggttg cagtgagccc agattgccc actgactccc agcctgggcg acagagttag 1020  
 actccgtctc aaaaaaaaaa aaaaagcagg aggatttggg agcctgtcag ccccatcctg 1080  
 agaccccgct ctcatctctg taatgttgga tctcgctccc actttccccc aaagaaccta 1140  
 ataaaaggct tgtgaagaaa aagc 1164

<210> 347  
 <211> 2160  
 <212> DNA  
 <213> Homo sapiens

<400> 347  
 ctaaagagcc aggaattact gcagagtaaa aatgaagagc tgttaaaagt gattgaaaat 60  
 cagaaagatg aaaacaaaaa atttagtagt atatttaaag acaaagatca aactatactt 120  
 gaaaataaac agcaatatga tattgagata acaagaataa aaattgaatt ggagggaagc 180  
 ctagtcaatg tgaagagctc ccagtttaag ttagaaactg ctgaaaagga aaaccagata 240  
 ttggggataa cattacgtca gcgtgatgct gaggtgactc gactaagaga attaccagg 300  
 taaaattgac ttcctttgaa taactcatgc cttttttatt tttagatgtt tttataaact 360  
 tcaaaataat gtttagacct ttttctcccc catatctttt tctcttattt tgccaatgtt 420  
 tttgctaatt tctaagtatg ttttcttctg ttccaattaa attagtttag gaatttcaa 480  
 cctggcgaaa tgttttttta aaaccatgtg attctgggca gggggctcctg atgagaagct 540  
 gaagacttgt atagcaacac cattgagccc tctggttctg aagctagaga gatctgactg 600  
 gaatcccagc tctgccacat attagctgag taactttgag caagccattt aacttctcta 660  
 aacctcagct gtaaagtagg gacatgaata gagttgtcat gggaaactaa gaaatcattc 720  
 atgaaaagca cttaacatgg taagccctca tgccatatga tcttgggtaa gtcagcctct 780  
 ttcagcatta tttcatcagt taaatgagt agttggcagt accccttgag atcacttcat 840  
 tccctaacag tatttttcta aaataaaatt acctcactca atttttctat gatattcact 900  
 tacaaaattc agttttcttt tgagatattt gctaagaatt ggattctcaa ctgcttttta 960  
 aagttctagg cgagaagtca gttatctgag gcctaaagat ctgcagatct gactttgtct 1020  
 tcgaatgatc ctagaagttc caaatataaa ataacttga atataaaata atcttcttg 1080  
 tgtttccaat gaacagatcg attttgaatt ttcaacttcc cccctcattt tgaatgataa 1140  
 acttgtaggg aagcaaatga aacagtaata tataacattt aatttattaa tttagtttta 1200  
 taaatgtatt tgaaattaat gatctgttca catggaaata ttgccccttt tccacattta 1260  
 tatttcatag gatatttgca ttcaaacttt tatttaacaa tggcaaaagc aagacatttt 1320  
 ttgtaatcat ataattataa ttgattaggt tctagttaga ggttctgaat attggcttat 1380  
 accagtctta ttcaaaataa agtaatagaa tgtccccttct tatggaagtc tttgtaaggt 1440  
 atcccaagga atgtttcctt ttttctaagg aataattttg tggtagaat tttgttagtg 1500  
 tcaagtattt atactaagag aaaccagtaa caaaaggcca catatgggtg gattccattt 1560  
 atacgaaatg tccagaatag gcagattcac agagacacaa agtagattag tagttgccag 1620  
 gggctggagg aaccaggggg tgtagaatgg gaaatgactg ctaatgggta gtttcattta 1680  
 ggagtgatgc agatgttctg aaattagata gtggtgacag ttctcaactc tatgaatata 1740

```

ctaataacca ccaaattttg cacttaaaag gagtagattt tgtggtatgt aaattatatg 1800
ttggttgacg ggcctcatgc ctgtaacccc agcactttgg gaggccgagg tgggtggatc 1860
gcctgggcct aggagctcga gaccagcctg ggcaacacgg caaaaccctg tctctacaaa 1920
aaataccaaa gttagctgtg cgtggctcgtg catgcctgtg gtcccagcta ctgcgagagg 1980
cagaagtggg aggagcccag gaggtggaag ctgcggtgag ccactatcat gccactgcat 2040
tccaacgtgg gcgacagagt aagaccctgt ctcaaaaaaa taataaataa atatattaaa 2100
ataatatctc aataaactgt tattttgtaa aagttatata tgggtatacag tctgttttagt 2160

```

&lt;210&gt; 348

&lt;211&gt; 1663

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 348

```

ataactaaaa acagtaataa agttattttat ctaccaggat aaaaaaattc tcaagtgtgt 60
attaaagata aaacaaaaac aaaaacaaaa acaaaaaaac aaacaacaca tagttggtgc 120
tcaataaaca gtcaacttcca gcatgaccac cacttttagcc tatggttagt tacttcagca 180
tccccaaact ccaacccccca tgccccgccc aatgtgctgg agacttggca ggtgggaccag 240
tcagggaagcc aactgcccac ctctcactgc tgccttcacc cagcccagca ttgctatttc 300
ctgctaccag caggctgggg gcctggttct ttcactagag ctaccatgca ctgagccagc 360
atctgatatg tgtaactca ttccattctc aaaagccact gatatcatct tgcaggatgg 420
atttgggacc tagcaagact gacttatcca aggtcacatt gccgataaga ggaacaactg 480
gggttcaaac caaggcagct ggggtccagag cctacgtgct taaccactac cctcttgctg 540
cctctcttag tggcaaatga taaaaaccca ctctctaaga gttaaggcag acaggaaaaat 600
gtgtacatca tggagccaaa ttggagaaga aatacagctg ggtgggcctt aaagttagtt 660
gaaacctgga acataaacgc tgccaggacc gtatccctgg cccttaacgc tgccaggacc 720
gtatccctgg cccttggctt tctgtgcatt taggttcggc tcccagacca ccctctccac 780
caagctcaga taccatctag ttccacattt cccggcatca tctgctgctg cctgaaccgg 840
aactcaccat tggaggcttt ggcatcaata atcccggggg agggctctga ctggccccgt 900
ttggcccaga tagtaatcct tggaccaatc agtgaggccc aggcaggagg ggtctctcca 960
caggcccggc ttgtcttcag tctctggcac ggagggtggg gtcacgtgac aacacggaag 1020
tagccctcgc ccccgcaatg aggcagtgtg gtgggtgggg agatggtttt tcagagggaag 1080
ggaggattcg gactggccag aaaaaaaaaa ttgcggtcta cctaccctgc ccagcctgtg 1140
agaatcacac aggccagca gaggggaagt aagtgaggca gaagcttgag ggaagggaag 1200
caacaagaaa gggctgcgtt ggcgtgaggt gcgtggaggg tgtcagggaag acagtgcagt 1260
gtgttgcgag gagggagatc agtgaaggcc gaagggtggg ggtcaaaccc gaagacgaag 1320
cccttatcaa acgggcacgc gtctctaggt tcctaaaaaa cgggaagaaa taaaaataac 1380
cggccgggtg cgtgtctcac gcctgtaatc ccagcacttt gggaggccga ggcgggcgga 1440
tcacgaggtc aggagatcaa gaccatcctg gctaacacgg tgaaatccca tctctactaa 1500
aaatacaaaa aaattagcca ggcatggtgg cggggcgcctg tagtcccagc tactcgggag 1560
gctgaggtag gagaatcggc gtgaaccggg gaggcggagc ttgcagttag ccgagattgc 1620
gccactgcac tccagcctgg gcgacagagt gagactccgt ctc 1663

```

&lt;210&gt; 349

&lt;211&gt; 2190

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 349

```

gtgaaattca gaattccggt tcttctaac taatgaaaaa ctgcttacta aaaaaaatt 60
ttatactttc cttgctaagg tcccatatat tgatttgtac agatccactt agtcattttc 120
tctttttttt aagaaccatt ttcatctgat ttttaaacct acgataccag ttatctgtta 180
atcaaaattg cattttacaa ttttaataat tgatatttcc tatgtctaca gcatacctta 240
ttaggtataa aacctactgc aacttagaaa aaggaaaaga aaaagaaaac ttttccaact 300
gctgcattaa gatagggtgg attttatgtg cttttttttt ttaagagttg aatttctttt 360
cctgactttt accttttaca gcgtattact tagtgaacat tacattttca gaatagatcc 420
taatatttta ttgagggcct atgtgctaaa aactatgcat atctatata tggccaatta 480
tctttaataa ttacctttt gaaattgcat gtttatcata tatccttaag tggacacata 540
cagtgccatg ttgatgtgcc tctcagtttt attgaaaagc tgccccacag cccatgtctc 600
ttgttctctg caatgcctca agggagttag ctctcaacca cagatagctg tggcttctca 660
gaagcagctc attgccaagg ccaggctgag aggggacctg cttgctgtgg tggttgccta 720
gccagatga gcatttacct accaccttcc cacttggtca gctgtccttt ggatatgtgc 780
tgtaactggg ggaaggcatc taactagtag cctgtactc catagtatgg ctcaatagat 840
gacacatcat tttagacatta tcaataggag aaaagaaaac taacccttct tctgattgtt 900

```

```

tggagccata gttgtctcag atgttctaat tctcttttga tgcttggaag cagcatagat 960
atgttgctgt ggttttcaga attttctctt ttaatacaca gaagcctttt aaaaaatgac 1020
ttacacatat tctcaatgta cagtaaaaca gacagaagtg agcttatctg tttgatgctg 1080
tggcagggtc ccagtcactg ggcatacctc ccttctcctt aaccagctcc tcagcagccc 1140
tgagtcacct gcacaagggt cttgggaact gctgggtatg agcattcctg gttttcttca 1200
gccaaataac aggtaatcac tgtcaattgg atttgggtct cattatttta tattctgatt 1260
ttatcagaat tattctatct taaaattgtt ttaaaattta aaaacattta attcatgatc 1320
atgttcatca gtatagtgta ttattcataa gaactgtgat tccagcaaac tagggtaatt 1380
ggtgcctttt tacagttttg aataaaaagca tttaaatatt ttttaacatta aaatagtcct 1440
gttttcagcac tcaacctcat catacgctga tttaaatatt ttttaacatta aaatagtcct 1500
tttccctgtt gtgccaccat tcatttaagt gctgtttgtt cttaaaatgc atttaagaa 1560
aaattaccca tattgacttt cacacttcat ataacagat ctattacaaa tatatatcgg 1620
agtgcagggt ccacggatag atgtaatat tcttacagat gctggcacag aggaataaat 1680
ataccagcta atctagctcc ctaacctgtt gggttagaatt gcaattttta gccagaaaa 1740
atttgaagtc tgatcagaga tttaacaactg ttcattatag tgggtgcctta ggcaatcttt 1800
ccaaagttaa ttccggcccc cattgtctat tatgccatag ttggacatac ttttttttcc 1860
ttcaattttg taaacttctt ggaaagctgt cttcactaag tctcccctag tctctatata 1920
tgtggttagt agtcatggaa atgacacata aagtacgcca gaagtttgat ggaacgtgtt 1980
agaaactgtt ttgtgctttt ttggatgtca tacttgacaa tacatgtgta agttactaat 2040
atatgaattg atgctaaata tatcttacat ttgaattcct tttggataaa gttatttctt 2100
gatgtgacac agtagtgtgt tttcattttt attcttttca tgtgaccaa .acaatagaaa 2160
agttaaaaat aaaatatagt gtttttagtg 2190

```

&lt;210&gt; 350

&lt;211&gt; 1013

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 350

```

cgatagcttt agttttatct atttttcagg ggaaaacagt tgaaaatgcc cttgattcat 60
tcttttggtt ttaaatgatg cagctaactc tagagaacct tgagtgatgc cataaagatg 120
ttgatgtgac ctgcttaagg aaagtgcgtg ggaaagtggc catttggaat agatttggtt 180
gaaaagtttg aaattcttgg acttcaacta atttgttttc catggatccc atgaggatag 240
ttgtaaaagc agatgatagg atacagtcgg atcctgtgaa tggcactagt ttagttgtgt 300
tttctggagt tcttccatat gtgcgtgact tctttgtatt tgaccgtgta tggatacaca 360
gaatttttga gccagagaaa gaaaagaagc ttataaaaca ttctttaaag tgtgtaaaaa 420
acaaatcttc atttgtctta gcaagtcaat aagtaattaa gttgttgaac tgattttttt 480
taaaaaacag ggaatatctt taaaatttaa gctgttaagt taaaatgtgt aattgggtata 540
cagcatatta ctgaaggtag aatgggcttc gtttggtaat aaaggaacca gaaatagttt 600
gaagtaaaat tgggagatga ttcatgtaga ttactatat tgttgatca ctttctagt 660
tgtagtacta tgtattttta aagagtaagt aggtaaagga gtggtatgat tactttggat 720
atctctgctt cagccacagt taccatgaat aaatgatctg tctttataaa ggagatggaa 780
gtgaattcaa gatattgacg atgttagatt tgactgggtt gtcccttggc .tagaagatca 840
ccagataaaa tgtaaacctc ctaactaga tgagatgata ccattaaaca ttttttttgg 900
cccagcactt tgggaggctg aaatgggaag atcgtctgaa ccaggagtg aggctgcagt 960
aagctataat ctgccatgca ctccagcctg agcaacaaag ttagaccctg acc 1013

```

&lt;210&gt; 351

&lt;211&gt; 1023

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 351

```

caggcagggt gatcacctga ggtcaggagt tctagaccag cctggccaac atgggggaac 60
cctgtctcta ctaaaaatat ttaaaaaatt agccacgtgt ggtggcatgt gcctgtagtc 120
ccagttactc gggaggctga ggcacaagaa tgccttgaa caggaggcca gaggttgctg 180
tgagccgaaa ttgcgccact gcactccagc ctgggtgaca gagtgagact ctctctctct 240
ctcaaaacaa aaaagaatat tatgaaagct ggactatcac ctgtaagtct gatttttaaa 300
agggaaacaa tgatacaaac ctgtctttta caacagacaa ctcttaattt caccacttaa 360
catcctatta ttttgccat tcccgctcaa tctttatgca tgtgtattta cactgttata 420
aacatgggtg gcaaaactat ttgtgttggg ctattttcac ctacatcaa gacttgaaaa 480
tgcccccaag tttctgtata tttctgtttt tgttctaata acttacatgg tcgcataata 540
gtcatgtgtt tacagttagc tatcttattt aatcattcct gtcttctgga accattacgt 600
ttattctaat ttttagctcc tgggtaacac ctcaatctgt atcttttatg aatatgtcac 660

```

```

tttgcttctt gttgccccag gaatacatag gcaccagagg ccaccttgat agtgttttgt 720
gtagcctggt aggcctgagtc tagggatcac tgggaattag ctttggaag gtgggcatct 780
taggcccagg ctaatgaact tcaattttac tgtattcttc atcagccatt ggaccttctt 840
ttgactacag ccccaatgct tttctaattt ggctgaaaat atttacattt ataaaaaatt 900
attggctggg cacaatgggt cacacctata atcccaacgc tttgggaggt tgagggtggg 960
ggatcacttg agcccaggag tttaaaacca gcctaggcaa catagcaaga ccccaaagct 1020
acc 1023

```

&lt;210&gt; 352

&lt;211&gt; 1279

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 352

```

ataatgtgtg cataatcatt ttaaatctaa gtaacctatg aagtctgtgc tcgggtgtcat 60
gaatatttta aatgttttat ttcattgatgg gggagaattt gcatgaagga aattaaatat 120
agttattgat tgccaagtga gaagttggat tgtttttaga gataatagat aataatgggc 180
atatcagggt tttttttttt tgtaagtcta gaaaagttta tgtgctgtag aagagatcta 240
gtctatatgt taagacattc ccttgctaatt tattttcttc tctgttggtc tatttttttg 300
gtccagtttg ctgtttttta agttttgagt ccagctgggt cctgtacatt taactgaaa 360
aaaagtaact taaaataata taaaaatagc actcatgtat gtcctacagt tataggtgaa 420
atttgatatt gtttgtctta catagcatac ctatagacag ctttaagtaa gtgactgtta 480
agagggttat gcttattgat gaactcttgt agttgtttac cagctctgtt agtatagtta 540
aattgatctc agtagcttca agtatttata aaatggttga agtccaaata catgtgataa 600
ttacaataca ctttgaatta atggagggtg ggaggctagt tgaaatgcat tttatttacc 660
caaggagtat gttaaaatga tagttataaa tgttggaagt ttaaagcaag atactcagtt 720
tagttcttta caaatcataa gaagaacaaa attagatgtt gacattgcta ttttaggctg 780
tgtgttttcc atatgcttct tgctttccct gtcacaggtg gtggcagcaa tattggtgtg 840
attgaggtta tgctggcacc actcgcacac aggcgcacaa tgggtgttagc tgggcagaaa 900
gagtggtcct tctggctacc gggctggggg cgacctttac cataggatga agtaaccttg 960
cattcggtct caaggtgtac tgtacgtaca cagggtgctg tcatgtcca ctttctgctt 1020
ttctttcttt ctttttttct tttttaaagt aatttcccc acagtaaaat acactgactc 1080
ctgagtaaatt tgattttcca gttttatgga attgggagtc tgacaagtga aaccaattta 1140
atgtaaagta tttggctttc aaatgggttc tctgtgctat tttttggaat tctttcagat 1200
tccagagata tcttacgtct ttgattcaat ttaaaatttg tacttatttt cttttagaaa 1260
taatgtattg tgtctgtgc 1279

```

&lt;210&gt; 353

&lt;211&gt; 321

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 353

```

gacaataaac tctccgagag gctaagcacc tcggagaggt tattgtcaga atgtacatta 60
taaatgggtct ggctgcgttg ttgaagcaaa ccaataatgt attcattttc aatctgctca 120
tgcattttga actccttgaa agtagcatac aaagactgca gaagagcacg gaaatcggtg 180
ttgttggaat aattgggttt agaaagcttg tcgcagtaga gcccaccag ctgcttcac 240
cgccagtggt gggcggtgaa gacgtocact tcttcaggaa agggcgccat cgccactgcc 300
tcagcctccg cctcagcagc c 321

```

&lt;210&gt; 354

&lt;211&gt; 1422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 354

```

gtaacattct tagtttttaa taaaaccctc aaccttctct ttgtttgttg gacatactaa 60
agatcaccta gaattgaaat tctttcttct caaaacatta aatttagttt tgtgtctaca 120
ttttcatttt gactttgaca tgcattggtg cagaagtggg atacaaagct gactcacctc 180
atggagaatc attggccttt ggagttatgg catgaggtag ccatgttggg gccctttgaa 240
ccccctacac cccaccact ttcacaggta atcctttctc cctccagtaa gtatctcttg 300
gacagaactc tcagatatgg ttcgagttct gttttatttg ggatatgatt agggagaggt 360
ctttccccct cttgtttggg agatctgttg ggtagaatta ttttccccct gttgacctca 420
gctgcgaggt ttggaccttg aggcttggat gagggaattt ttccctttct ttggagaagg 480

```

```

cttatcattc ttactggtaa gcatgtattt tattttctgt cctgtcttgt atttatttgg 540
ccttttgta ttacagtgtt gcatttactt ggcttttgca tagttgacat taaatcagag 600
caccacgaa atgagctctc aaagttcaaa ggcagccag aatattttct ggaactccag 660
ctagtaacat attcaaacat tacagggatc atttagtctg tttttcttaa aactgaacta 720
aaagatggag gctataaaat catacactcc aaataagata tgcataattc attgatattc 780
tgagtctaaa aaaaaataaa aacaaaaaca aaacacattc aggatacaaa tattgccttg 840
ttaaaaaata ctgtctcaaa ggtggctgaa actttctttt ctagaccttt cccctccct 900
tcttacagta tccctctttt atccttctct aaacagctat tctaacatac tacttaata 960
aaaacacttg aaaaccagca gatataaaac aaagtcattt tgaccttctt actgtttttt 1020
ttttaagca aagattaaat tcccatgtaa aaccttctc cctatacaaa aaagaatagc 1080
agcattttta tcttcaatga caaagaattg agtccaagaa aatactgtat aaacctgtt 1140
aaaaatcact cttgtctttt ggtctactc acataattca gcacactttc acagttaact 1200
atTTTTtgtt caatttagtg cactggtag tgactcaaac tgctttatcc caaatttgat 1260
ttacagcctt tataagattg cctattaaaa aagcttaaaag cttatcctta gccattttg 1320
tcagaaaaat aatttgcac taatcatttt tataaactgg tgaatttacg tgttttacta 1380
tatcatgact aaaattctaa aataaaagt ttaatatctt tn 1422

```

&lt;210&gt; 355

&lt;211&gt; 2085

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 355

```

ggcagtgct tgtagtccca gctacttggg aggctgaggc aagagaatca ctcgagccta 60
ggtgttcagg ctgtagttag ctatgatcaa gccactgcac tccagcctgg gcaacagagc 120
aagatcacgt ctctaaaaaa aataagcaag taatatgcag tttcccccct gtggtaacat 180
cttgcaaac tatagtgc aaatcacacc agatattggc ctcgatacag tcaagatgca 240
gaacagatcc atcatcacia ggacctctct gttggctttc atagccacac caactgctcc 300
ttatccccta gaatccactg atctattctc ccatttctaa tttgttgtt tcaataattt 360
tgtatgcctt catacagtct ttttgggatt ggcccttttc acttccatgg ttctctgggt 420
gttgagtta tcaatactgt agtttattcc ttttgttgt tgatacagac ttctatacta 480
tgatctggat atgccacagt tagtttaact gttcaccac tgtagaacat ctggtttgtt 540
tctgttttc acttttgtga ataaagctgc taataaatat tcatgtcgag gggaaaaaag 600
caatgtggat taattgtctc atttttctat ttttctata agtaccttac ttgtcagaaa 660
cttgatcttt aaaataagt atgcacttgg tgaaaattta ttgagttgta cacttgctgt 720
tacttttctg ccagtatgtt atatatattga gtgaaacatt tatttaaaaa taattagatt 780
ttttttcccc tctgggtttt acttaggttg gattcagatg ccgaggacac agtacttctt 840
cagaaagaag acagaatttg caaaagagac cagataataa gcatttaagc tctagtcaat 900
cccatagaag cgatccaaat tctgagctct tatattttga ggtatttttt tcaaactcta 960
tttgtaagct gttataggaa atgttcccat taagaaatta attgtttaca ttgtgaacat 1020
tgtgagtact ttttatgtct taacatgtga ttctagtatt aaattataaa ttactcagaa 1080
gtattaactc atttttgtct tgggtatata tatttaactc aacattaatt ttactgatgt 1140
ttatttttat aaatttttgt cctgtgtgtt catcatttag ggggtaagt atagaggtag 1200
aaacttgatt catgtggact ttatttagta tggagctttt tcaacttaatt tttgttgta 1260
ttcaatccat ttgaaaggct tttcagattt gagtagttca gtctagttaa gttgtgctgc 1320
cagccaggag aatttttagg aaggaagaaa aatgttttac tttctctgat agacagtcca 1380
tatcctaatt gcactgttat tcatctaaca gattcttact ggtggtctag tatatgtgtg 1440
cagtaagggt ctctgaatga tacattaagg tgaatagacc tgctatcttt gggaaagttg 1500
ctgtgtagta gaagaacata ggcataatac cacctaatac ttagttgagt gtggttagag 1560
ttgagcgcag agacaggtca ctttgggttt gtggcagggg aggtaacatt tgaaatgaat 1620
ttaaaaaaca agtagaattt gtatgtgtca agatgttttt caccacacat ctccggtaac 1680
tcatttgagt aactcatttt ggttgatca taaattctat tgaatgagtt aatagatggg 1740
aggttaaact ggaaaacttg cttgaggtca gaggatagaa atcaataata tgctggcgt 1800
ggtggctaat gcctgtaatc ccagoacttt gggaggccaa gcggatcacc tgaggtcagg 1860
atcccttgag gtcaggaggt cgagaccagc ctggccaacg tggtgaaacc ccactctac 1920
taaaaataca aaaagttaac tgggcaggtt ggcgggtccc tgtaatccca gctaactggg 1980
aggctgagggc aggagaattg cttgaaccca ggaggtggag gttgcagtga gccgagattg 2040
tgccattgcn ctctatctg ggcaacaata gtgaaactcc atctc 2085

```

&lt;210&gt; 356

&lt;211&gt; 2321

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 356

```

tttttttttt tttttttttt ttgtatgtat tatatttcat ttatttttgag acacattttt 60
tctaaccattt taatgtgtgt aaaatcaggg tgaatcacac tgtagtagaca gtctcataat 120
aaattttacag ttttaagtac ttttttgctg atgtttaaat aataattttat tttaaaatac 180
atgaaaactc tgatttcac aaatttgaaa atcatttgaa atatgataag attgactttt 240
gggctgatat cttgggcttc ttggtactta ttgcaaatgg gagaggagac atgatgatgg 300
ctcatgggat attctgatat. gacctgttaa aaacagaaga acaaaagagc tccacataaa 360
agatgtttgt acacccatgc tcatagtaat attattcatg atagttaaaa gtgaaagcaa 420
cccaagtgtc catagataga cgaatggatg aacaaaatgt gttatacgca tatggtggaa 480
tattgttcag tttcaaaaaa ggaaggaagc cctttcatat gctacaatga ggatattacg 540
ctaaatgaaa taagtacaaa aaagacaaat atttacaatt ccacttatat aaggtagcta 600
gaatagtaga attcatagag acagaatgta gagctgtcct aaccagggcc tggagaagag 660
gggaaatggg aacttgcagc gtaataggaa tagagtttca gtcttgcaag acagaagagt 720
tttgaagatt gcttgcacaa caatgtgaac acacttaaca ccactgaact gtacacttaa 780
aaatggtaaa gatggtaaac cttatgttat gtgtatttta acagaatttt ttttaagtcc 840
acataaaacg aatgggagtt tggggaaagg atatggtgaa aggatggagg ataaacaatt 900
tttaaataga taaaatggta aaaaacagtg gaagggtgaa cagaaaagac atattaaaaa 960
aaaaaacac accacccaca actcaccggc gcctcatata ccataatgca aggcatagca 1020
aaaggagcaa ggaaggcact attattgcca aaacaattga gccaatggag gtgggggttc 1080
ctggcaattg agagaggaca aaaggatgtc acttcagata ctatacacag aattccttgg 1140
ccttcctttg cccacctact tccaatgtat ggctatttcc aacttcctct ctcatattcc 1200
tggccaccat atatccatcc tttgatcccc tctaccaggt ttacaggtcc ttaattccta 1260
catttttgat aacttggatt atctattttt actcctgttg ggattggggg cagggaatac 1320
aatcaatcaa tctctccctc tttcatctct caagctctat ccttcccag tgcctccctc 1380
tatgcctgaa gatcacttcc tggcatttcc agcctgggtc cctgctattt cttactccag 1440
tagaggatga tgtcctggcc ctctaaactg ctgtgcttca cccgacagga caggccagcc 1500
gcctcccat ctgccacatc cagggttgct cggagatacc atgtccagtt agcattgggc 1560
aggatgtccc ctactgtagt gccctgctgc tctgtctcac cccgcatcca catcaccac 1620
acgggctttg ggtagaatcc tgagacatgg cacacaagct gcagacggcc aggtccagga 1680
ctggggccac tggacagcca ggccctcaggc ttcactaagg caggaaggag aaaaaaaagt 1740
gtcatgttat aactcgagtt cagaggttat gaactcagaa acctacaagc ttggacagcg 1800
acccatttca ctcccttggg aaccaaataa cttgttattt aagctcctat cctttgatat 1860
cttccactc ttgatcttag aggaggtggt gggaagtga ataacagcag gactaacctt 1920
gtctttgcag atctgctttt cctgcattga ggacgcccaa gagatatcgg gggcaggttt 1980
catagaggag aattctcaca gtttccatga taccttgata ttgtatgatt agtgcacaga 2040
atctctgtgc cctgtgccca ccttctgggg aaggcacaca tgaagcattc ttgacactca 2100
ggaaatccaa tctctcctaga gctccctca ggaagcttac tatggcacct ccagaatgta 2160
gtcacagcc tgctatgccc tggatctcaa aggggtattt catctggaaa tcaccggcaa 2220
agtctgttac ttctcgagcg aatccaaaga tgtagactcg gaatatctcc tctaactcag 2280
caacctcctt atcactaaag ttacctttag aaccttagaa a 2321

```

&lt;210&gt; 357

&lt;211&gt; 1747

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 357

```

ctggactata caactttcat ttaactttta ggtgactgat ttaagttgag tgtgcatata 60
gagaaaaacc tagaaattta tctcatggca gatacatttg aaagtacttc agaagaattt 120
atgctgtata ttaaaactag gctcaaaata aatctatcgt atctttaaaa gtccaattct 180
gttattactg tgatgtttgt agtgttacta ttaaacattg tgaacataca cttttttaa 240
acaacttgaa acccatttta aaatctgggt aagagagaag gaatcttcag aacaaaatca 300
catcattagg gtgtccagtt tatgattgaa tttttaagca aattactgta tttgaaacta 360
caacttgatt tggttttcag ttttaaagg caacatgtgg gttttatcca ttttatttat 420
accttttagat ttcagaaaca tcttcatggt tttagatgcat tctacagaca tcatgttact 480
taaaaactca gggccccctt catccctttg tacactgaaa aagtccaatt gtttagcaagt 540
aagcaattag atccagttga atatttaaag tgtttgttgc acagttcatt taatgtttca 600
tcttatttga ctttttcaca tagatataat atcagatttc attaatata aaggttgcc 660
cagttctgta attactgaac agagggaatg actcaactaa ttggctacat gttgcaacaa 720
atttaggect ttagagttga agcactgact taaaacgact tacattttctg ttctttggtc 780
aaatgaccat acatgatatg ggacaaattg tttcattttg tttgtttttt aataagggaa 840
cttggtaaag tagttcctgt cagataggat tttctcaaga gacaatttaa cgttataaag 900
ccttctaaaa gtgaactaaa tattttataa ctttagtaat agcttggatg gttttgagaa 960
aataacctgt atttatcaca ttgtcaaaaca gaatttttct ttgaatcaga caagttcaag 1020

```

```

ctctaaattg atgtgctata tacttaaaat cctaggaagt tatctgtaac cagtctcttg 1080
cttcaggctc ttcaccttgt taccaatcct cgtaagtatg taaaggaaac atatttttaa 1140
agaagcttaa cagtaagaaa aaattactaa aagatgcaat tcaaagatag gtcccagttt 1200
aacactgaat tgcttgactt ctgtggcttt tctttttctg gccacattta tttatttaaag 1260
caatttttgt atgccttggg atttcatttc catagagatt atattgtatc agtgtttatg 1320
taagctggaa tcatcctcag ttttttgctg ataatttttc aaataaagat acatggataa 1380
ttgtaaaata cactaactct taggggtgtg tagtagctga aacatggaga tgcgtagctg 1440
tcatgctttt tctgaatgga caggagaaac ataagctacg gagtattcac tctgtaggat 1500
gcttttccgg aaaaagaaa gctagaaaat actcgcactt cctcagaacc ctctttcttg 1560
ttaacgggta tcttttgggt gtgtgttttg ctcttacatt acagatagac tatcatatat 1620
gactttatga ataatttcag ttattttgct tttgtataag ctgtctgaag ccttgctatg 1680
ctgtataagt tgtgtttgat ggatcagtg gagtataaaa taaagcaaat cacttttctt 1740
ttgtatt
1747

```

&lt;210&gt; 358

&lt;211&gt; 1893

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 358

```

ctggctgtga taagattttg tgaaccaaat gcacaagata ctatttaaga aatcagtcct 60
ctaaattgtg ttggagaata accctatact caaaatgttt ttattgatta ttttggccac 120
tggaatcaa ggcacatgaa aaaccgagaa actataatca taaagtactt ggctgaattt 180
aaaattattt attcatactt tcagaaagtt accaatcgag tccaactaaa tgcaaagacc 240
atgtaaaaaa aaatgagaaa cagaatatca tggaggataa gtatctgcca cgcagaaaca 300
tttaccaggg tggtaaagat cttgtattaa aatatacaga gtttagtttc aaagtaatag 360
tagtgaatat cttggtgaat ccttactgca atattaggaa atggatatgc ccaatgcaga 420
gtaaatttaa cagttctttc ttacatacca acatgaataa acatgagcag ttgacttgac 480
tttgtgacca catgaatatg gctacgtgaa tggacaggaa gaatcccatg aagattacta 540
gattttatcc tggattctga gaataaatgt taaaaacaaa aagctattta tcccaatct 600
cactgtctta atgaactttt atgtttctgt caaatgggag tggagaatga caagtaatct 660
taaaatattt atggagtcaa caaatgttta tgatgtgcca cacacataag gggtcagcac 720
ctaagaggca gcacttgga acctacagct cggaagtgat caagacagac cttggctccc 780
accttcagtc atctaagatg acaatgcaat gtcagagtga acattcagta ggacttgaag 840
atthgtgaca agagttcagg gaaaaacacat cagaattttt ggtgatgtgc atttagtagg 900
aagttgtggt taaaccttga gaataaattt gtccctggaa agagataaaa gaacaaggac 960
ttaaggacta aaatttgagt aaagctttca attaggaacc aataaaaaga tgaggaatgg 1020
gagtggaagc catggttatg gagtttgaa aagtatcaag gtcaggtgca cggatataat 1080
cctatgtggc caggaagttt caaaatagga agaccgacag cctataccga aggctgtgaa 1140
gaatgaagtt tggaggagag cctttatact tgattaggag gaaatgggta tcatctgccc 1200
gtgaacttga cactggggtt ggaaatgagt cctgagatat gggaaataga gaaaaatcac 1260
atatacagct tgttacgtaa atccagcagc gaaaggaagg tgacaacttc acacatggag 1320
tatctccagg aggttttaaag ataattgtga taaatgttga gaccaatttt tcttgtatgt 1380
aagtttctta tagctatgtc tggagtatgg atgattttta tgtaatatat tataaatctt 1440
gacttttggg ttgcttcttt ggtggtacaa aatagaaaaa aatgctattt tgtattaata 1500
tgcttttagtc actttcttgt aagccataaa acatttaaaa agcagacttt atgcaaattg 1560
ataactaaaa aattgtttta cacagaaatt aagattaatt tacttaaaaa ctgtgctcta 1620
cattatcttt atcttgatgt ttatcttgat gaccaaatta tgtcatcgcg ggaaatttct 1680
ctttatccat taactaaata catttgata ctaagggtag tgtctctaag agtaagattt 1740
atthcttaaa ttaatatatt catgaaaatt caaacaaca tagatcatct attagaaatg 1800
taatttatat acagcattaa ctcggaactg attctttgtt tttcctcatt cttctgggat 1860
tcttgaaaca caaatctaaa tgtatgtggc tgc
1893

```

&lt;210&gt; 359

&lt;211&gt; 2151

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 359

```

caaaaataca aaaattagcc gggagtgggt gtggggcgct ataattctag ctactcgga 60
ggctgaggca ggagaatcgc ttgaaccggg gaggcggagg ttgcggtgag cccagactgc 120
gccgctgcac tccagcctgg gcaaaaaagc gaaacttctt ctcaaaaaa caaacaagaa 180
agaaaggacc tgtttccaaa tacagccacc ctttgaggga gcgggggtta aggettcaat 240
acattgattt tggggagaaa cagtgaaggg cacggcaaga agctgcagtc attgtgggcy 300

```



```

ggcctgggtg gggagtgacg gggttcctgt cctgtgtgtc tgtttccag gggagtcctg 360
acctgactct cacagccctt ccacccagat gttcctgtgt gcttcaccca cccattcct 420
tctgcaccca acactcctga gccctcctt agctcccccg acaggtccc ctgctcccc 480
actccgggc tgctcctctt ctgagcctct ctctgggctt ctctggggtc cggacatgac 540
ccctcagctg atgcctgtgg cttccccagc cagaatcttc ccagttccag gctgggctct 600
gcagagtcct atcaaagggtg gcacccctcc ctctgtccac tcagggtga agatctgggtg 660
tttctggttt ggaatgcct ctgactggg tgctaataat tcaactttac ctttataatt 720
gtggttttgt aaggacaggt atttttggca acagaagaaa tcctgtgagt tatttaaaaa 780
aaaacaaaaa aactccctgg caggctcttc tccccgctgg tcccgctcag gagtgtctct 840
gccctgatgc tgggtgtggc aagagttaac cctgtaggca ggaggggtgc cccagtgggt 900
ccacctccag caaggactga gagcgagcag agccaggact ggggtctatg gtgaggccag 960
ggaagaagac ccagctgtac ccaggggaga gggcctgagc aactgagct gacctgggg 1020
agaccctgac aaggcttaga caggccccag ggctgccgtg atctccagt gagccccaga 1080
aggggtcaga gggggagggt tggaggctct agcaagtga tgggagcccc ttctgacagg 1140
tgctaaggga tgtggggagc cgggggaagg aaggagggtg ggggtgcaagg gaggaagcgt 1200
ggagagggtg ggggagggtga acagaccaga agggctcttt actcctctgg gcttttcccc 1260
cactttccag acactcgatg gatccaccca cattcacttt caactttaac aatgaacctt 1320
gggtcagaga cggcatgaga cttacctgtg ttatgagggt gagcgcatgc acaatgacac 1380
ctgggtcctt gctgaaccag cgagggggt tttctatgca ccaggctcca cataaacag 1440
gtttccttga agccgccat gcagagctgt gcttcctgga cgtgattccc ttttggaagc 1500
tggacctgga ccaggactac agggttacct gcttcacctc ctggagcccc tgcttcagct 1560
gtgcccaga aatggctaaa ttcatctcaa aaaacaaaca cgtgagcctg tgcatcttca 1620
ctgcccgcct ctatgatgat caaggaagat gtcaggaggg gctgcgcacc ctggccgagg 1680
ctggggccaa aatttcaata atgacataca gtgaatttaa gcaactgtgg acacctttgg 1740
gaccaccagg gatgtccctt ccagccctgg gatggactag atgagcacag ccaagacctg 1800
agtgggaggg tgccggccat tctccagaat caggaaaact gaaggatggg cctcagctct 1860
taaggaaggc agagacctgg gttgagcctc agaataaaag atcttcttcc aagaaatgca 1920
aacaggctgt tcaccacat ctccagctga tcacagacac cagcaaaagca atgcactcct 1980
gaccaagtag attcttttaa aaattagagt gcattacttt gaatcaaaaa tttatttata 2040
tttcaagaat aaagtactaa gattgtgctc aatacacaga aaagtttcaa acctactaat 2100
ccagcgacaa tttgaatcgg tttgtagggt agaggaataa aatgaaatac t 2151

```

&lt;210&gt; 360

&lt;211&gt; 1107

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 360

```

tgtagagatg ggatctagct atattgcccc ggcttctcct ggtctcttaa tgtctgcccc 60
atcttagaat cttgtgttct tcaccatcta tgtctctgag attttgtttt tgtcttctctg 120
tatgtccatc tctcccatc tctgtcttct atgtcttctt ctctgtctct gaccaccag 180
tatctctgtg tctcactgtc tctggtcagt aaatgtctgt cattgtggcc cgtttcacac 240
tgtctctata tctgtttccc ctgagatccg ggatcagttg aaggaagagg agatccacat 300
ctaccagttc ccgaatgtg actctgatga agatgaagac ttcaagaggc aggatgcaga 360
gatgaaggaa agcatccctt ttgcagtcgt gggatcatgc gagggtgggtg gggatggcgg 420
gaaccggccg gtgaggggac gccgctactc ctgggggacc gtggagggtg agaaccaca 480
tcaactgcag ttctgaacc tgcgacggat gctgggtgag acacacctgc aggacctgaa 540
agaggtagcg cagcatctgc tctacgagg ctaccgggac cgctgcctac agagcctggc 600
ccggcctggg gctcgcgatc gagccagccg cagtaagctt tcccgccaga ggcacacaga 660
gatcccgtg cccatgctgc ctctggcgga caccgagaag ctgatccgcg agaaagacga 720
agagctgctc cgcagcaag agatgctgga gaagatgcag gcccaaatgc agcagagcca 780
ggcccagggc gagcagtcag acgccctctg aggccacgac ccgcccggcc ttacctcggc 840
tcgccttca gtcggcctct tgtccaatcc ccgcgcccc cactgcccag cgcctccgg 900
gacctccgcg ggtgcccggc tgcgcggggc tagggggagg ttctccagc ctgagtcctg 960
agccccggcc cggcgtgggt cdcgcccacc cagacaccgt ccacttcccg gcccggggccc 1020
tgcaaatct ccgaccgat cactgtcttc cggagteccc cttcttctcc cagactctgt 1080
cttcaataaa aactgagctt cccggg 1107

```

&lt;210&gt; 361

&lt;211&gt; 1421

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 361

```

gtttcatatt tatggctttt gttcactatc atgaatatatt ttttctattc ttcctatct 60
ttagggttgc tagaaaatat tataaatatt ttagcttggg gtaggtagct gagtgatgaa 120
ataaaactgg ttcttgaaat ctttgagctt tgtgtttata ttcttgcaa tgtttgctgt 180
tttaaagggg gtggcatgtt tacatcgaaa tgggcatgtg catgtgtcaa tcagaattct 240
gtcccccta cacacccttc ccgaaaaccc ccaccccccac cgcagggtgct ctgttctgcc 300
aggcatgtta cctctgctat acaaaaaggt gtttttggca agagtctcca ctcaagttgt 360
gaaagcattt ctaattttgt ctgacttgc ctgcttcac attcagagac gtctttgtct 420
ctgaatgtta cgtgtggata tgtgtgtact ttaaaatagc cacaaccca acaacttccc 480
tgtaacttat tgccaaggga ggagtagctg atgcctttac aatggttcaa ttctacattc 540
catagaacat aaacttttaa gaaaaaaatt cagattataa aaaaagtact taagattttt 600
tttaatgggc ttctctggtc tgtgttttac agatagatat tagctttctc ctggatgtga 660
gtcactcag cagagcggaa gaggacctca gtatcacagt gcatgctacc tgggtataatt 720
tattgttaat aaaatgaact agaaatatac ccccatattc tgaggggggg gaattaggag 780
aaccgtaaaa ctgtgttcca ttaattgtaa gagaaaactt ctcttacgtg gtatgctttt 840
aaaagaacca aacaacatag ttaaatggga gttactggca atgttttagc tcttgagcta 900
tgttaagtat ttattagatt agattagagt agacatgatg tgtcacgaat caaactgtgt 960
atltgaaatc aaaaacagaa taaacagttt acaagtaata actctacaag atttaaaagt 1020
gagggtaatg acttccatag atatgtctcc tagagtaaag aggaatcgt taatgactat 1080
ttcatgagtg aagtttcaat atatttttta aaattcggaa taaacgtcaa gatggacttc 1140
atlttaccta acacaacaac ttggtcacc ctcctccta aaaaatctcta taagtaaac 1200
tgattataaa gatacgttaa ggcagtacat gacttgctat acagtttaaa aaattatatg 1260
attgatgtgc ttctttgat cattaagtct tgcaaaaaca cttcttcaac ctaaaagagag 1320
taatagattt gtttctaac tacctattta ttctggtttt tgtaccacct agaacataaa 1380
tgttanaaaa tcttttaatc taataaatgt aactatttgt t 1421

```

&lt;210&gt; 362

&lt;211&gt; 1335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 362

```

gcatgggtgct gggatctgtg tggcttctgg ggaggcctca ggaagctaac agtcatgggtg 60
gaaagcaaag gagatgtga cgtctcacat ggccagagtg ggagcaaggc agcggggaggt 120
gccataccct cttaaataac cagatctcaa aagaattaat tcactagctc aaagacagcg 180
ccagcctatg agagatccac ccccatgacg caaacacctc ctaccaagcc ccacctcaa 240
cactggggat tagaatcaa catgagattt agaggggaca acgtccaaac tatatcaggg 300
ttcaattgca caatttgggt ctgcagtgga caatattttc ataaagattt tgttgtgaat 360
gttttttagt ttcatgtttt actatcaatt tatagacaaa gcatccaaac attaatgtga 420
gttacagaat ggaggttggg aggtagagag gtggaggaag ggttagtggt attgatttct 480
tcaaaaaacc tgaaggaggt taagagatat ttaacatttg aggggtcaa atagggttag 540
ggctgtagtt caaatgggtt aatgatagag gcgcatgct gaggcagtat agcagagttg 600
ttatgggcac aaatccagag ccggacttcc agggtttaac tgcttgctct gccacctga 660
actcagccag attacttaaa ctgtgccttg gttttctcat caaaacatgg ggccagttat 720
aggtgttttt ttctgttttt gttgttttgt tttgttttgt tctgtttttt tgagacagag 780
tctggctctc acccaggctg gagtgcagtg tgtgatctcg gctcactgca acctctgct 840
cccaagttca agtgattttc ctgcctcagc ctcccaagta ggtgggatta caggctcctg 900
ccaccaagcc cggctaattg ttgtatttt tagtagagac ggtttcaccg tgttggtcag 960
gctgggtttc aaatcctgac ctcaagtgt ccacttgcc cggcctccca aagtgtcggg 1020
attacaggcg tgagccactg cgcgggcca taatagttt tatcttataa ggttgttctg 1080
agaataaaat gagttaatac agtgcttaga agagtatctg aaacataaaa atcatgagtg 1140
ttttttatga tgcagcagct gctgaaggaa aacaaaagaa ctcaaaatta gcatttcaat 1200
cagcggagat tgggaagagg gagatagtag tttgagagtt aattttctca tcttttaaaa 1260
tgggaggtta atagacactt taaagttgac aaatcaagaa atggaagcat aactatcaca 1320
atggaagcaa ttctc 1335

```

&lt;210&gt; 363

&lt;211&gt; 1364

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 363

```

aataaccttc accctgagct tgtgtctttt attcccaact cttggtaaat agttttgtga 60
tgtctcataa aactcctaca tctttacctc acatcttcag caccocacc tctcacacat 120
accacttat acaaactcag taaacagact ccatcactta atgttttctt gttccctatg 180
aagtcaaate cagatgcagc ctgcgcccag tacttttctg actttatcta ctgttctttc 240

```

```

ccttcacacc ctcagctttt agctaaacat ggatgtatag cccctttttt cctcctcttt 300
aattttacaga tttccttctc cccccccgcc cccttcctat cactcttctt gtgccctaaa 360
attatctacc ttttaaggtc caactctgat acctccttca gaaatacagt ttctctctct 420
gtagtctcat ataattaaga tttgctttct gtggtactta tttatagcgc aaggaagagt 480
ataaatctct tcagggcaga gtcactgtgt ttttcctctg ttctgcatct agaaagtact 540
ttaggcatgg aatgaaagaa attttgctgg gtgcgctagt aactggctta ttttcattct 600
tcagtgtcag ctcaaagtca cctcttcaga gaggctttcc cttgccaccc ttccctctgt 660
aaccacttct ctcccttcat catactgcct tgctagttta ttattccatt gtccctaatc 720
caataggtta ttttcttatt tatttgctct cctccaacat gaataataat tcataaggtt 780
ggtgactttc taagtctcat tctctactgt atgtctagac cccagaacag cacatgcccc 840
ctcagtaaac attgaatttc tgctctagct tattattagt cttcatttta aatgcctgaa 900
gcattgtgtt tttatttaaa gccttctatg gttacaaaca aaatgtgaga tagaagctca 960
tcttttgagg acaaaataat tctacaaata agataatagt catctagatt aaatttgtca 1020
atttacagat ataaaaactg acatgacatg agatggttta agtgtcaaac ataagggctc 1080
ttggctaggc gccatggttc acgcctgtaa tcccagcact ttgggagggt gaggtggatg 1140
gatcatctga agtcaggagt ttgagaccag cctagctaac atggtgatac accatctcta 1200
ctaaaaatat gaaaattagc caggcatggg ggcaaaactc tgtagtccca gctactaagg 1260
aggccgatgc aggaggatcg cttgaacctg ggaggcagag gttgtagtaa gccgagattg 1320
tgccactgna ctgcagcctg ggtgacagag tgagactctg tctc 1364

```

&lt;210&gt; 364

&lt;211&gt; 1937

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 364

```

ataaataata gcattgttaa agatagttat taccaaaaaa agagagttat tacaataaaa 60
tatgtctctt tatttttaaa aatgaaatct taattcattt actctatttg atgataaaact 120
ataaattcat tgaaaatgtg aattctatta tgggtagcct ttttaccat tataaggaaa 180
atttacagca gtgaacatga acattcactt agcttcctca gtctctccat cttaaagatc 240
atttatcaga gagggttcag cattttttgc agcataactt ttcattgagtc tgtattacta 300
atggataagt caaatccatc ctgcacttct acagttttaga aagtatctgg actcagaata 360
aatgtaatat ttatacttgt ttccagaatg ttattttaca ttttatgttc aataagaaca 420
cttttttaaa gacgtatatt caacataaaa tcagctatca gacttcagat tagactttat 480
ttatgtgggt ctataataat tgtattttca agaggtttcc actatatttg tattggcctg 540
gttttctcag acgatttttg acaaatcatt agaaactggg catcatatcc acagttaatg 600
aaggcagtga tatacataaa ggataaacia agtcaagtcc ataaagcaat aatccctcag 660
aaggaaagtc cttacttttc acatattaat atttagtaat ttttctgct tctaaaagtg 720
agagtatcac accctaaatg aacactgtct actaagagac atcattccat ttccacaaat 780
gaagatttta ttccaagaaa cgagtttact gattggagca tagggcttgt tgttattttt 840
attcaagcct ttagtaatag ccttgaattt attatttttc ttataggctt tttgttaaaa 900
tagtgaaggg acaaatgtta aagggtaga taatttcctt gcaaaaggac acagaaggca 960
gtcttaagaa gatgaatgga tgagaggagg ggagagaata aaatgcaata acgagccagc 1020
atttactatg tattttcccc ccacctgtct ctccatattt aggtcactta ccagtttctg 1080
tgcccttttg gagcttttgt tgagggtctc attctcacco tgtatttctt tagccctaaa 1140
ttgacactct ctccaaaaat ccattccatt gtctgtggac caagatgttc tatgtaattc 1200
agaagcagaa ctcttggtta aagggtcagt gtggccttca gaaaccattc aattattttc 1260
tccttacacc tttgtcagtt tgaaaccagt gaggaaaaaa ggtatgttga taagaaacct 1320
atattgctag gtgaatttg tacttgtttt cttggtagca gttttgaaat attctgtaca 1380
gtacgttctt attgtttaat aataaattca aaaatatttc taaaacctta aaaccaacta 1440
tgccaagcat taagataaac aaatatgatg ttctttgacg taaatcaacg tgatgattct 1500
ttcacatgta aacacatttt agtgtttctg gtttgtcatt tttgtgttg ttgttgtgt 1560
tgttatttac tctataccct ttagcaaaat acagttttta atttttattg tttttagtag 1620
tttcccaact ttaagactta tctaatttaa ctgagaaaga aagccttttt catatatata 1680
tataattggat ttctaaggat ggtggtttga gccttgatta gacttttgat gtgctaagcc 1740
agacaggcag tctgtacatt gatggccatc acaatgcagc tttggtttta ttttaattcag 1800
gcctgtgtct gagttatgca cagacttttt gttgaccaa ataaaatata aagggttttc 1860
ttctgtttga catttgtgtt cattttttct ctttatgtat tacattttta cctatatata 1920
ataaatgttt aaatgat 1937

```

&lt;210&gt; 365

&lt;211&gt; 1479

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 365

```

ccaccaagaa ggtggtggac aacaccacag ccaaggagtt tgcagactct ctgggcatcc 60
ccttcttgga gacgagcgcc aagaatgcc acaatgtcga gcaggcgttc atgaccatgg 120
ctgctgaaat caaaaagcgg atggggcctg gagcagcctc tgggggcgag cggcccaatc 180
tcaagatcga cagcaccctt gtaaagccgg ctggcggttg ctgttgctag gaggggcaca 240
tggagtggga caggaggggg cacttctcc agatgatgtc cctggagggg gcaggaggta 300
cctccctctc cctctcctgg ggcatttgag tctgtggctt tgggggtgtc tgggctcccc 360
atctccttct ggcccatctg cctgtgtccc tgagccccgg ttctgtcagg gtccctaagg 420
gaggacactc agggcctgtg gccaggcagg ncggaggcct gctgtgctgt tgcccttagg 480
tgactttoca agatgcccc ctacacacct ttctttggaa cgagggtctt tctgtcgggt 540
tccctcccac ccccatgtat gctgcactgg gttctctcct tcttcttctt gctgtcctgc 600
caaagaactg agggctctcc cggcctctac tgccctggct gcagtcagtg cccagggcga 660
ggaatgtggc caggggatcc aggacctggg atccagggcc ctgggctgga cctcaggaca 720
ggcatggagg ccacaggggc ccagcagccc accctttcct ctcccactg cctcctctcc 780
cttcctacac tcccagctcg agccgtccag ctgagggtgg atctgagtat atctaggggc 840
gggtggcggg tagcagtgtt gggcctgtgt cttgagcctg gaggaggtct gctcctgccg 900
ccctctgccc tgccagagac agaccatgc gctgcctgcc caccgtgcc ctttgtcccc 960
atgtcaggcg gaggcggaag gccaccgtg ccaggagctg tggcaccagc ctttaacctc 1020
actctgctag cactcctccc ctttcccaa ggtagcacat ctggctcact cccactccg 1080
tctctggagc ccaccaggga aggcctcat cccctgccgc tacttctctg gggaatgttg 1140
gttccatcca gatttggggg cctctctgt caccactct gcaccaggga tccagtccc 1200
ctgcctctcg gcacagctgc ttccctgcaag aaagcaagtc tttggtctcc ctgagaagcc 1260
atgtccctcg tctgtctct tgccctgtccc acctgtgccc tgccctccag cttgtattta 1320
agtccttggg ctgccccctt ggggtgcccc ccgctcccag gttccctct ggtgtcatgt 1380
caggcatttt gcaaggaaaa gccacttggg gaaagatgga aaaggacaaa aaaaattaat 1440
aaatttccat tggccctcgg gtgagctgag ggtttttgc 1479

```

&lt;210&gt; 366

&lt;211&gt; 1408

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 366

```

ctcacctagc atcttcacg accctggacga actcaaggca ttcttcgcag aggttgtcag 60
tgatggtgta cccttgggtg tagcctcggg ccccccacgg cagccccact ccttcatcac 120
ccagggttcc ccagacctgt tgggtactgt gactgccagt gggctgctgg gcacccacag 180
ctggttgccc tatgaccgca acataagcaa ctacttcagc ttcagcaaag accccacat 240
gggcagccac aagacgcagc gactgctgag tggcccggtg gtgccaggca gtggtgtgag 300
tggacaagca ctggcagtg ccccggtatg aaagctgcta ttcagcgggt gccactggga 360
tggcagcctg cgggtgactg cactaccccg tggcaagctg ttgagccagc tcagctgcca 420
ccttgatgta gtaacctgcc ttgactgga cactgtggc atctacctca tctcaggctc 480
ccgggacacc acgtgcatgg tgtggcggt cctgcatcag ggtggtctgt cagtaggcct 540
ggcaccaaa cctgtgcagg tctgtatgg gcatggggct gcagttagct gtgtggccat 600
cagcactgaa cttgacatgg ctgtgtctgg atctgaggat ggaactgtga tcatacacac 660
tgtacgccgc ggacagtttg tagcggcact acggcctctg ggtgccacat tccctggacc 720
tattttccac ctggcatttg ggtccgaagg ccagattgtg gtacagagct cagcgtggga 780
acgtcctggg gcccaggtea cctactcctt gcacctgtat tcagtcaatg ggaagtggc 840
ggcttcaact cccctggcag agcagcctac agcctgacgg tgacagagga cttgtgttg 900
ctgggcaccc cccagtgcgc cctgcacatc ctccaactaa acacactgct cccggccgag 960
cctcccttgc ccatgaaggt ggccatccgc agcgtggcgg tgaccaagga gcgcagccac 1020
gtgctgggtg gcctggagga tggcaagctc atcgtgggtg tcgcggggca gccctctgag 1080
gtgctgagca gccagttcgc gcggaagctg tggcggtcct cgcggcgcat ctcccagggt 1140
tcctcgggag agacggaata caaccctact gaggcgcgct gaacctggcc agtccggctg 1200
ctcgggcccc gcccccgga ggcctggccc gggaggcccc gccagaagt cggnggnaac 1260
accccggggt gggcagccca ggggtgagc gggggccacc ctgcccagct cagggtattg 1320
cgggcgatgt tacccctca gggattggcg ggcggaagtc ccgcccctcg ccggttgagg 1380
ggccgcccct agggccagca ctggcgctc 1408

```

&lt;210&gt; 367

&lt;211&gt; 1302

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 367

```

aatcttttgg ctgaaatgga agattctgtt aaatactttg aataaacttg gggggagggg 60
aataaaattg cagaaaactg cagagcacta aaacttaaaag aagggtctaca tctttatcca 120
gaaacctgtt gctcttttgc acggaatgtt taaattcaga gttgggatgg ggggtggggg 180
gaagcacact tattatcttc agttgcagtg atttcaaatt taggattttt tgttgttggg 240
ttgaactgtc cccttagttt cttgttattt ccaatttttc tgccttagtca ttacttttaa 300
ttcttttctt actaaaattt tatggtggtt gggggaaggg agttagcatc actaacctga 360
cagttgttgc caggaatttg ctttgtttac tgctagtata ttagaaatcc tagatctcag 420
aatcacaata gtaataaaca acaggggtca ttttttccta acttactctg tgttcagggtg 480
tggaatttct gtctcccaag aggaaatgtg acttcacttt ggtgccaatg gacagaaaat 540
tctacctgtg ctacatagga gaagtttggg atgcacttaa tagctggttt ttacaccttg 600
atttcgaggt ggaagaaat tgatcatgaa tctctaataa atttaaactc cttaaaccag 660
taggtgctta atattttttg atttgattaa tgccatttta aatctcatgg gttctattaa 720
aaatatatat atatagggcc ccaatccatt gccatcaaat tgcccttggg cttttccaag 780
gtatattatg gggttttatg caaaattcca agctaccatg taactttttt taaccattta 840
acaaggaggg ggaactgttt cctacctctt ttacatgttg tgcatgttg tgggccagaa 900
atgccaaaac tttttaaaga tgggtgcaact ttgagtcctt ggcttgacta tacaggcctt 960
gaacttcatg gcataatcac tttgccatat ctgcaggagn gctgttctat aagaaatagc 1020
tcagagttgc aaatatcaca tgtgaatgat acggttaact ttaagaaatg tctgtattgt 1080
atttgaagac tgtttgccat aaatctgaaa tttgaaccta tgtatttcaa tttgggatgc 1140
taaaaagttc tgaattaatg taaagttttt tgttataata ttgtaatctc .agttcaaaag 1200
ttaactgcaa atataaaacc caatgatttc tatatagtaa attgaactgt .aaaggtaact 1260
tgtgngtgat tctgaataca tagataaatg tttttattcc tc 1302

```

&lt;210&gt; 368

&lt;211&gt; 1082

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 368

```

tttttttttt tttttttggg ttttgttgtt gggttaattt attactgttt gacatccagt 60
gacactgaca taccctcgcc gggcccccgg cgagtctgac ctgtccaata aaatacagta 120
ggaggagtgg acggtgacgc acatgcatcc acacttaact acagtgactc caaactgcgg 180
cgcaacagta ctgccagcaa cggaaaagaa aaacagggtat cgtgtgttcc ccaattcggg 240
attctctctc tctctcttta agacagttaa tgctgttaca gatgtactg atgccaggac 300
agggccagtc acaaacagtc ctacagcttc tctgctgtat aaatatggaa gattcttttg 360
tttatacagt tttactccaa gtctgaaact acatctgctg ctaccggtta ctgctaaggc 420
ctatgccatc tcagctctgg aacgaggggc tcggggtcga gactggaatg tcggggctca 480
gtottcttcg ctgccacttc ctgagcggtc ctctcttgt tctctctcac tgtcatctgc 540
actcacgacc ggcttggctc gggaccctcg gctcggccgc cgcggccgc ccttcagccg 600
gtcctgtgcc ttctccttcc ggccaagctt gatcttcaact ttgacggacc gagattcggg 660
ttcggagcct tctcctctgc cctcttctc ctctcactc tctctgcctt cactgtcatc 720
ctccttctcg attttctgcc gcacgctggt gaagaccgac tgcaagacga tggagtcttc 780
atagatcagg gagccctcca ggttgaaggt ctgtgcgttc tggcacagga gcatgacgtc 840
cttctctagg tcgttgaggc tgcggtactt gtggttgcca atgcgctcct ttatcttctt 900
gaagtccacg ggcttgcgga tgagctcgta gtactcgggc agctcctttc gcgagggcag 960
ctggatgaag acctcgctga gctgacgtcc actgctgctg tcttgtact tgatcacggc 1020
atccacaatc ttcttcatct tcttggtgag gttgggtggg ttaggggaga gtttctcggc 1080
ag 1082

```

&lt;210&gt; 369

&lt;211&gt; 1119

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 369

```

gccaggacac aaggtctcct ttccccgctc ggctggccgg atacaaatgt caccctcgaa 60
gctgcctgga agttccagct ccgagttccc tgggaggact ttttcagatg ttaggggacc 120
gctccagagc cccctctggg tccccctggg ttctccagc cccaccagat cactcactgt 180
ggacctgcc tctgaataat caggaaacggg ggcttcagag acgtctcttg ggcttccct 240
ctggccacgt ctgcaccac cctcctggg caccctcta gcctgccatc cctcacctgc 300
agccaggctc tcagggaagg tccatgctgc ttggcctgag ttcaaggctt tctgcctgta 360
gcctggactc ccgtggacc cctggggcag gtggcttccc cgtggcatct ccacaccgcc 420
tctgcctgcc cctgtggact gatgctatcg cgcaccgtcc cagcaccaca ccccgagctc 480

```

```

ctgaagccgg ggtctgagcc tgcatacact ctggcctctc atccccact ctctcgagag 540
cagtggctcac agcgcccgcc cgctctgctg agaaggcaga gaggcaggct caggcctcag 600
cgtggacagc agggataagg ggcacgaagg acggggactc ggccccctca gaattcctca 660
ggactctcag gtgcagcttt gccaaaaagg aacttttcat gtcatacagt tgaggggact 720
tagtctcaat cccaggctcc tcttgactct gggcagcttt aatcagggtg ggcagcctct 780
gctacagcgt ggagtgggat ggctctcttc cctcagccac gccgcttggt aggacagagg 840
tgggggagtg ggaagtggga agtcaccaga gaacaggaga gggattttgag ggcgagaccc 900
cagcgtctct caccgaccag ccagagggac tggagccagg tgtgcatggg ttcaaggccc 960
tggccctgcc cagcctctgt cttgggagct cagccccagg gttcggctgt cagcagtttc 1020
ccaagaacaa gatgtgatgg catctgctgc tgaaccctg atgaggacca ggccccctgc 1080
accgctgtca gcctgaggaa ttaaagcttt ggtgctggg 1119

```

&lt;210&gt; 370

&lt;211&gt; 1060

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 370

```

ggcgggtcga cagcagctgg agggcagagg agggcgccgg ggggtgtcctg tctctgccat 60
gaggccgcag caggcgccgg tgtccggaaa ggtgttcatt cagcgagact acagcagtg 120
cacacgtgc cagttccaga ccaagttccc tgcggagctg gagaaccgga ttgataggca 180
gcagtttgaa gaaacagttc gaactctaaa taacctttat gcagaagcag agaagctcgg 240
cggccagtca tatctcgaag gttgtttggc ttgtttaaca gcataacca tcttccatg 300
catggaaact cattatgaga aggttctgaa gaaagtctcc aaatacattc aagagcagaa 360
tgagaagatc tatgtccac aaggcctcct cctgacagac cctattgagc gaggactgcg 420
agttattgaa attaccattt atgaagacag aggcagtagc agtggaagat aaaccgaaga 480
attaagatc ccacttccag ccggggccct catgtatoca ctggccgacc gcagagtgtc 540
cctacctcct ctccagagca tcattccttt ctatctgctg ccagagccac ggtgccattt 600
actccaagga ctcaactttct aaaattccac acctggagtg acctctagtc gctcagcatc 660
cactttgtgt ctccaaattg tgtaggactc tgtaatcttt tgattagttt ctgagaaaac 720
acaatgaagc acttcaacttt tttttattca agccatttta ataaaacaca gttggtcagc 780
ccagtgcata gcttggtatc tgcaccagct acataccatt ggttctcttc attccttggg 840
ccagcttctc aggtggcttt agacctcaac aagccgtatc ttcaccagtg ttctatcttg 900
ttccctaaa ttaataaaat gtttttctcc aggatttttg tgaggggttg ctgtggctgt 960
cgttttgac ctccagatt tcaagaatt actggtttta ccatgactca aatcttaaga 1020
tctgtttcta ctattcagtt cctcaaactg aagcttattg 1060

```

&lt;210&gt; 371

&lt;211&gt; 3344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 371

```

caattgttca ttaagtaaaa ggggctggcc aatttaggta ttcaatacat gtttgccttc 60
aaccaccac ccaccacct actggcaca aggctccaaa ctctacttgt aaaatctacc 120
aaaaagaaag ttactgcatt atatttgtgt ataatgggt tttacaacat ctatatgtg 180
gatttttttt tttctgctct ctctggaaaa aaattagttt aagccttgct taagaaaaaa 240
gaagctaaag taaataaatc ctgaccaaga acgcataata tctcagtttg ttttctgtaa 300
gtcaaatgtt tagaaatagc aatgtatttt occataaaaa caagttttta gattctcaag 360
ccagtgtatg gngngggggc caaaatatat acctaatgtg tggtatataa ccacagcat 420
ttagcacaaa gaattcattt aaatatatat ccagagttct aggttgggaa gatcttggga 480
gaaataattc ccacaaaat tccaggaaact agaaaactgg gacttacttt caccagccat 540
gactctaate ttctcaccca ccaggatgtg agactaaaca ctgcccgctc tctgtacccc 600
ctcccatccc aaacccaga ctacaaactc caaaagcatg ttcatacaat cccttaggac 660
aaggatggaa atagaggtga caggggagag gaaggcaaga aacttagaag tgtctgaagg 720
gtgatttttt aaaagtcgag gactgggggt gtgtccatgg aattaagagg ggtttcctgt 780
cttagttctc tcttgatat gctgaaaaac caaagcagag tgaggaacaa ggactaggtg 840
gagaaagcaa ggctgaacat ggaagctttt ctacagttac ttctgtgaaa gtaactataa 900
tttgaaactg gattaaattt tcccttcccc ttctccttot cattgctgta ctagtattac 960
aaaaagaagc tgtgagaaac atctaaaaga gttcctttgca ttgaggcagg gtgataatgg 1020
accactggaa atgaggtggg aagtaacatc ccaaagggga tggtataaac tgagaaaata 1080
agaaagtata tttaaatcct tctactctac tctgagttct ttaaccacag ggttcacctc 1140
ctgcccaact ttgcaccttt ggtgcctgga aatctggcac acagtaggtg gtcaataaat 1200
atgtcaaatg aatgaataaa tataactgta gtatagctca tattccttat ccagatccca 1260

```

```

catcataact gaagggtcta tnttcctagc tattggagta ctgctggcag acagccctca 1320
gctgtcagcc ctctttggga attacctagc aaaaaggagt cacttcggcc caagatcata 1380
ctccttcctg gggcagcttg catctaata taggggatat aaacgtccag ctccctcac 1440
cccaacttga gacaactttg agggaccatc tccagnttca gagctctccg tgtgggtaac 1500
tgaaactgta tcacagtcca acttctncca tggaaatctg gctttcttcc tttacatggc 1560
attggnccca agaggcctnc ctagtaaat tgggtgtctc agatttccat ttcagagtgt 1620
ctgctttcag ggaattcaa cctgaaacaa tagtccaaaa gaggacctag atttaacca 1680
gctaaggaaa ggatctgatt tcatattaaa ggcagttaat ataaaaagg tttattaagg 1740
ctaaggaaat acctttcttt tccagcaatg tatttccatt ttagctcctt taagtaata 1800
acagacctag agtactttga ggactgtctc aaaaaggccc acctgtttta ctaccatcta 1860
ggcaattaat gataaactgt accaaattca atttatctaa cttaaaagaa tgcaaaaaag 1920
aaccattatg aatttagtgt aaacatggta taaagcattg cagagaacag actgcttttc 1980
ctgtggatgt taatccacat ctgacttgat aaggaattgt ttctccacta aaagctacta 2040
aatacattaa gcacagtatt tttcattatg attaagatag ttagaaatgc aatgcttata 2100
taaaagtcat ttttaaatta tgaagagtta caaactacca gatctactta aggtacaaact 2160
gaataaaaaa taaataaatg aataagtaac aaaaccattt gcttcatctg gatacagctc 2220
catatgtact tacgtattt ggggtcctaa taatacttta cccttgcaag aatgcttgag 2280
gtttacccat taaattgagg ctccagactt atttcaagca tataagtatg ctttttaaaa 2340
atTTTTTTTT tagaagacta cttgccaaat tgctacatag catgattagc actaaccatg 2400
ctttctaatg ccactctata actcttgctc acaactaaaa tctgaggggt ttgccagagt 2460
gtacagatac caatatccag ctttactata gaggtgaaat gagggtgacta tatatggaaa 2520
aagtcggaat ctgtacttcc tggaatatgg ctcaaaaggc atttagcaga tgttttatac 2580
tggattagtgt attattaatt ctatctgtat atatttcaga aaacacacct ggatttgaat 2640
catctgctct gtggaaattc aagaagcagg ctgagtgaac ctgaacacca gcatgccctt 2700
tgccatatta cctcatcatt atactcttat tttctttcaa taatgcaaac attaaactatg 2760
taatatttct tgcagagaca ggatttagaa accacaagag gatatttatc aaagaaaatg 2820
gaaacaacag ggtgctgaga aaacctgggt ctagtacaac tgcaacacaa acatttttaa 2880
taaaattagt atcagagtgt ctataattac cttccaccaa atgtttcatt aatttaacc 2940
tcagcttctc tatgttaaca taaaagcaat cactcagtac ccactcttac ctaacactgc 3000
ttttacttca tctcctgcat gtatttctt gctatttgtt tcctattata agaaaacaca 3060
ggctggatgc agtgtggctc acacctgtaa tccagcact ttgggaggcc aagggggtgg 3120
gtcgcttggg cccaggagt ttagatcagc ctgggcaaca tggtgaaacc ccatctccac 3180
taaaaataca aaaattagcc tagcgtggta gcgcacactc tggtagtcca gcttctcggg 3240
agggtggggg gggagaatca cctgaacgtg aaagggtggg ggtgcagtga gccagtatca 3300
cgccactgca ctccagccta ggcagcagag caagactctg tctc 3344

```

&lt;210&gt; 372

&lt;211&gt; 931

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 372

```

ggcttttttt tcaatataac attttctttt gaaatagttt aagattgaca agcagttaca 60
aagtggccca ggctatggca tacccttcac tcagcttccc caattccatc gtttaattttt 120
tgtatatgaa aaagtgaatg gatcactttc attgtttcca aatcttctga aaagcacaga 180
aactaacact tgtgcagtac gcacaccaat ggcctgcaag gtggctctgt tgcaagactc 240
ttgatgaagc ttggggaaga cgtcatcaaa ctctggactt gaatgttaaa cctgctggca 300
gcctgccctc tcacagtatg gtcttctgtc tgggtgccaa caaaacttgg ccttgtttta 360
aaagaaaaat agctcagcca atctttgtga tgaaggtttt gaatgcttaa ctgaattcaa 420
ttaggacagg aaaaaggaaat tgcctttaca tgtgcagaat aaaaaaatct gtttttattt 480
tttttccaaa gagctcactt ttctcaaatg agaaaatgaa gtttaattta gtataagaaa 540
gatcaattgt aataaagaaa acttaaaagg ctttgtgtca agacggatta tattcaaaag 600
caatatttag gtgatgggtt aagagaacag ctggcacaat taaggcctga atgtgcaccc 660
tgtggttgag aagaaaatga agagcactta atcatatgga cgtcgtatat ttttcaagac 720
ataaaacctc taatgttget tttccagac caagggttgt gaaaaagctt ggagactgtt 780
ttattacatt gggctttctg cccagtttta atcaccatta gggaaaatagg gctctgacca 840
ggatactata tttcactttc aggatggcta gtggcaagta gcattgtatt tcctaaatta 900
cagcctgaat tatacgtata gcagaatgat g 931

```

&lt;210&gt; 373

&lt;211&gt; 1181

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 373

```

gtcagggctg agatggagag ggccagggcc tggcgagggt gagcagtcgg cccaggtgtc 60
ccagcaattg ttgctggaac aggggtctgga acccacagga gaggcctgaa ggaccacagg 120
ccctctggct ggatgcgttt gcctatcagg acccagaatt acttacagac ctgttttaggg 180
ctaggcttgg cctctttctt gagctcatct ggaggggtgt ggcaacactc attcttcctc 240
cttattctcc ctggctgtgg gcaacactgg tcctcagtgt caccagatgg tcctcctctg 300
tgcccatgac ccctcagcag ccaaggctgg ccctgccaga taaatgtgtg tgcccatgat 360
cacaccagg ggacacaggcc acatacgttt ccctgaaaaa cttgggtccc agcctccatc 420
ccgtccatgt gggaggaact tgggtcccag cagtgtgtct ttcagcacca agtcatgttt 480
aaaagaccag agagacaagc attttgccaa gatcttccag ggaagatgca tgtgtgacac 540
attaacattc aaatcaggcc agcgcgtgtc tcatgcctgt catccagca ctttgggagg 600
ccgaggcggg aggatcactt gagcccagga cttggagacc agtctgggca acacagttag 660
accccatctc taaaaaaagt taaaaaagaa aaaaaaagg gcacatgtct gtagtcccag 720
ctactcggga ggctcacttg agcctgggag gttgaggctg cagttaggca tgatacgct 780
ctgtactcca gcctggttga cagagtgaag aactgtctca aataagtaaa aataaaattc 840
aaatcggtta ccttagtttg gaaacttttc aaagaagtag tccacgagaa ctacctgaa 900
agagcaaaac cagccagggt cagtggctca cgcccataat cccagcactc tgggaggccc 960
aggtgggtgg atctcgtgag gtcaggagtt caagaccagc ttggccaaca tggtgaaacc 1020
ccatctctgc tgaataatac aaaagtggca catgcctgta atgccagcta ctggggaggc 1080
tgaggtagga gaattgcttg aacctgggag gcagaggttg cagttagcca agattgcgc 1140
attgcactcc aatctgggga acaagagcaa aactctgtcc g 1181

```

&lt;210&gt; 374

&lt;211&gt; 1336

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 374

```

gtatgatcct gaggagtcac aggcattccg gacctttatt tcagggcatg gctgaggggt 60
ttcagttgtt gactatcaca agcaggaaaa gaatactcag gaaagcaact tagacttcaa 120
ggctcctacca cacaagtgtg acacgttcac caactatttg ctccaagaca ctttcagagt 180
gatgggtggag agaagccac aagagcatgg agcgttacca atgccggaga tggcgccag 240
caggctcctg tgcaaggctgt tgtccagggt gcttcccttc tgcggcgtca ccagcggatt 300
cacagctggg agagccaggg attcatcctt cacagtcatt cccgcgttca cagggaagg 360
tgacacatcc ctacattga tccgctggac gttttcaatc agcagaccaa acagaggcag 420
gtagaggggt gctatccttg cctgatggct ccttgagca tatctgtcat caaaagaatg 480
ctttatcagc aggttcttga gcacactgat ggcgatcaga cggacctccc ggaactcctg 540
gagggctgtc cccacctccc tcagtaacag tcccaccaag aagtgggttc tgcagaactc 600
atctgttaat gagtagtcaa gctggaggtc ttggtatctt tgaatcctgc cttttccaaa 660
tggcatttgt aagtccaacg gaataataat ttcatgggtt cacactacac ggagaaattc 720
aaacttgtat tcaaaagagg tctttgggtc tccaggagca aaacagctaa tgtagtgtt 780
gatctgcttg aagacaaagc ccctgtccat gaagtgaaa catctcttga tgaagacagc 840
aaggctatga ttccgcttct tagatgcctc tggattatct cgaacttctt gagttagtgt 900
tggcatcagc atatttacia cggtttccac tgcattatga taggatgcag gaaatctctg 960
gtttcgcagc aacttaactt tggagttctc tatcaaatgc tgagccatag atttgatcag 1020
tacatcaaag aaaaaccatg agtacttcag tagtttggtt ctggtgagga aatcngcaga 1080
aggcttgaga atcgtggtca tggatttggt cagttcttca tgcactgtct tgtattcaga 1140
ggcaacatat ggctcagcct tatacgcgta cttaacatat gacctcaagt ggctctccaa 1200
tccttctcga tggcactggg caaccacatg aataatgacc cgagtcacgt taaccgcgac 1260
ttcttctctg gtgctctgg tgaggactcg gaacagctgg tttaggatag tgggcaagaa 1320
ggcggaacct tagaaa 1336

```

&lt;210&gt; 375

&lt;211&gt; 1409

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 375

```

gttcaccgta cttcgggtgca cgtttgcaga cctgggtggga agaggggcat cttagagccg 60
agaccattc actcttgga ctccagggtg agctgggcct ttggggcctg gatatatcca 120
gggctgcgga ttttcccccc ttcagggtta aatgttccctg tttttctacc tttccctcgc 180
agtatacgct caacggcaag aaagtggaag ttgccgtcaa acagatcatc gctggaaaag 240
ccgtggagca aggaggtgct ttctcgaacc ccgagaccct ggatctgtac cgggacatcc 300
ctgagctgca gggcttctga gtcagactgg ctggcgtgtc actcagccgc acccgtgtgc 360

```



```

actgtaactt ttgtgtgctc aagaaattat acagaaacct acagctgttg taaaaggatg 420
ctcgacacaa gtgttctgta ggcttgggga gggatcgttt ctctgttttg ttaaatctgg 480
tgggtacctg gatcttccac acgagtggga ttctggcctt cagagaccag gagggagtgt 540
ctgggcccga gtgtggcact gtggtgagag tgtgtgtctt tgcacacaca gtgcagcggg 600
aacggtgggg ctggctgggt ctgaagacag acacactcct gagccaaggt cttgtcttca 660
acctccccgt cccgttgtcc ctttttgctc tgtgaagggt caaatccctt tcttcccttc 720
ccatctcagg ctctcctgtt ttccctcagg gtccagtatg cctttgagct ttagctgtta 780
gaaaggaacc cccgtgactt gacacagctt tcacagctgg ctgctaggac cggcgggctg 840
gggtgttcacg tgtgtctgtg tcatggatgc aatgcggggc ctggaggact gtgcgtcacc 900
cgtcaaccag agcgtgcctc cgggcccagct tccctccaag gaatgagtgg atttcataca 960
ggatctcttt attgcacaga ctgaatggct ttacatgttt ctaatgtgaa ttaggcatgt 1020
gaagcagtgg gtgtccaccc gtgtccctca tgggtgagcc ctccagctgt gagcccaggc 1080
agtgtggtca ccgagtgagg accctcctca ccaggaaccg catccctgtg ctgcctccac 1140
ctgagagtgt ctagggggtt cttgtcgaga tcatgtcatc agcaccctta agtcaagtca 1200
cgggtttcca tagccaggca gttgttatgt acaattcagt tcagcgtatg aacttgatc 1260
tctaactctga tgtccatttt tatatttttt gaaactgagc acaatgaaat cctttcttga 1320
atcattttcc ttttggatta taaaaatatg ggggaaagtg ctatgatgaa tnttatgcaa 1380
taaattgata catgtgtgca catgcaccc 1409

```

&lt;210&gt; 376

&lt;211&gt; 1016

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 376

```

caccocccctg tctcctccag gccccggaga cgtcttcttc ccatccctgg accctgtccc 60
tgactctcca aactttgagg tcatctagcc cagctggggg acagtgggct gttgtggctg 120
ggctctggggc aggtgcattt gagccagggc tggctctgtg agtggcctcc ttggcctcgg 180
ccctgggttcc ctccctcctg ctctgggctc agatactgtg acatcccaga agcccagccc 240
ctcaacccct ctggatgcta catggggatg ctggacggct cagccctgt tccaaggatt 300
ttgggggtgt gagattctcc cctagagacc tgaaattcac cagctacaga tgccaaatga 360
cttacatctt aagaagtctc agaacgtcca gcccttcagc agctctcggt ctgagacatg 420
agccttggga tgtggcagca tcagtgggac aagatggaca ctggggccacc ctcccaggca 480
ccagacacag ggcacgggtg agagacttct ccccggtggc cgccttggct ccccggtttt 540
gcccgaggct gctcttctgt cagacttctt ctttgtacca cagtggctct ggggccaggc 600
ctgcctgccc actggccatc gccaccttcc ccagctgcct cctaccagca gtttctctga 660
agatctgtca acaggttaag tcaatctggg gcttccactg cctgcattcc agtcccaga 720
gcttgggtgt cccgaaacgg gaagtacata ttggggcatg gtggcctccg tgagcaaatg 780
gtgtcttggg caatctgagg ccaggacaga tgttgcccca cccactggag atgggtgctga 840
gggaggtggg tggggccttc tgggaagggt agtggagagg ggcacctgcc ccccgccctc 900
cccatccctt actccactg ctacgcgagg gccattgcaa gggtgccaca caatgtcttg 960
tccaccctgg gacacttctg agtatgaagc gggatgctat taaaaactac atggggg 1016

```

&lt;210&gt; 377

&lt;211&gt; 1528

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 377

```

cagtatctaa tttaactaa tacatttatg ctgaaacctg taccttaaaa catttttaaa 60
taggtatatt gagatcttca gaagtagcag gagtgaatc aaaggatttt atgatccacc 120
aagaagattg ctgggacagc gaccgggacc atatgataga ccaataggag gaagaggggg 180
ttattatgga gctgggcgtg gaagtatgta tgacagaatg cgacgaggag gtgatggata 240
tgatgggtgt atgtgtatct aatgaacaaa ggttctgttg tcattttctt aatgttctct 300
acactttgtc aagaaataca gaaatggcag taatttcagt acctattagg ttttaaaacc 360
tgttcatgaa aatacggatt ccatggcta gctgtgggac ttgactgatg cacatattgg 420
cacctagaaa acttacacag aaattaaaaa taagtgttg gcatattttt accttttttt 480
gcctaaggat gaaatttaatt ttacatgtct gaacttaatt aactttctga gatttttaaa 540
ttccatcacg ttgactgctt ttttcatagg ttttaagttg ggaattgcaa acttgcaact 600
aagtacaca gactgttacc acaaaatgtt tttgtaaaact aaattataaa atttatctct 660
ggaaagtgtg tagtcatgtg tttctcctta aattacacag gttatggagg ttttgatgac 720
tatgggtggc ataataatta cggctatggg aatgatggct ttgatgacag aatgagagat 780
ggaagaggta tgggaggaca tggctatggg ggagctgggt atgcaagttc aggttttcat 840
gggtggtcatt tcgtacatat gagagggttg ccttttctgt caactgaaaa tgacattgct 900

```

```

aatttcttct caccactaaa tccaatacga gttcatattg atattggagc tgatggcaga 960
gccacaggag aagcagatgt agagtttgtg acacatgaag atgcagtagc tgccatgtct 1020
aaagataaaa ataacatgca acatcgatat attgaactct tcttgaattc tactcctgga 1080
ggcggctctg gcatgggagg ttctggaatg ggaggctacg gaagagatgg aatggataat 1140
cagggaggct atggatcagt tggagaatg ggaatgggga acaattacag tggaggatat 1200
ggtactcctg atggtttggg tggttatggc cgtgggtgtg gaggcagtgg aggttactat 1260
gggcaaggcg gcatgagtgg aggtggatgg cgtgggatgt actgaaagca aaaacaccaa 1320
catacaagtc ttgacaacag catctgggtct actagacttt cttacagatt taatttcttt 1380
tgtattttta gaactttata atgactgaag gaatgtgttt tcaaaatatt atttggtaaa 1440
gcaacagatt gtgatgggaa aatgttttct gtaggtttat ttgttgcata ctttgactta 1500
aaaataaatt tttatattca aaccactc
1528

```

&lt;210&gt; 378

&lt;211&gt; 1767

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 378

```

ctttcaagct tttcaccctt cctacaggc cgggggttga agtctcacgc ctacattcac 60
agtgtccagt ttagccacca tgttttcttc aacctccaca ccctcaagtt ttactgcctt 120
ccagacaact atgagatcat cgattcctca ttggaggata tcacgtatgt gttgaagccc 180
actttcacia agcagcaaat tgcaaaacttg gacaagcaag ccaaatgtgc ccgggcata 240
gatggtacca cttacctgcc gggatattgt ggactgaata acataaaggc caatgattat 300
gccaacgctg tccttcaggc tctatctaata ttctctcttc tccggaacta ctttctggaa 360
gaagacaatt ataagaacat caaacgtcct ccaggggata tcatgttctt gttggtccag 420
cgttttggag agctgatgag aaagctctgg aacctcgaa atttcaaggc acatgtgtct 480
cccctatgaga tgccttcaggc agttgtactt tgcagtaaga agacttttca gatcaccaaa 540
caaggagatg gcgttgactt tctgtcttgg tttctgaatg ctctgcactc agctctgggg 600
ggcacaaga agaaaaagaa gactattgtg actgatgttt tccaggggtc catgaggatc 660
ttcactaaaa agcttcccca tctgatctg ccagcagaag aaaaagagca gttgctccat 720
aatgacgagt accaggagac aatggtggag tccactttta tgtacctgac gctggacctt 780
cctactgccc cctctacaa ggacgagaag gacagctca tcattcccca agtgccactc 840
ttcaacatcc tggctaagtt caatggcatc actgagaagg aatataagac ttacaaggag 900
aactttctga agcgcttcca gcttaccagg ttgcctccat atctaattctt ttgtatcaag 960
agattcacta agaacaactt ctttgttgag aagaatccaa ctattgtcaa tttccctatt 1020
acaaatgtgg atctgagaga atacttgtct gaagaagtac aagcagtaca caagaatacc 1080
acctatgacc tcattgccaa catcgtgcat gacggcaagc cctccgaggg ctctaccgg 1140
atccacgtgc ttcacatgag gacaggcaaa tggatgaat tacaagacct ccagggtgact 1200
gacatccttc ccagatgat cacactgtca gaggttaca ttcagatttg gaaggaggca 1260
gataatgatg aaaccaacca gcagggggct tgaaggaggc gtctagggct ttgctcccaa 1320
gggctgtggc tgatgatggt aaataagaac acagaagctg tagctgaaca caggctggct 1380
ggtgggcttc ctaggccagc ccagcttgta tgggttctgg ctacaccaga gcaccaagag 1440
cccacttgcc tgggatggcc ccacactgtc actcagctgt tctttgatca ttttttcta 1500
gattgatgct cctttctccc atgcattgag ctcccatcta gottcagcag ggcagaacct 1560
ttctccagat gtgtgtaact tatgtcttga gtatctggga gtagtgaag aacagataat 1620
tccttccaaa catcaagcct tgggattctt ggagcaagca gaaagccagt aacttcgctc 1680
tgtagagggt ggaggatttt cctatgggtc ccccatcttc ctgatttgta ttttttagatg 1740
gattaaatag tctcctgttt ttaaacc
1767

```

&lt;210&gt; 379

&lt;211&gt; 1191

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 379

```

ataattaata gttgttttta ttttgttta atacctagtt aactcttgat tctttgggat 60
caaattattg aattctgggt tgtccaaggc tttttttttt tctgccccca gctgcctct 120
tgtcagattg agtaaaggaa gataatgaca ggatagcaa atcagccagt ttggctatgg 180
ttaacactgc tgggtcaaac tataaaaaat aaagattgag aattatctga gtattttgtt 240
tatacagact ttcagttacc tatattaatg tgggcattag tcaagagtta actatgtttg 300
aatttactca tttcttaaaa aaaagtaaaa atgtgcacct atggataagt cctaactgac 360
ctgtattttc ttctgttatt ttctcttccc cacagcatct tgattgagat gtcatatgga 420
agtatacat tgttgctctg agttagtagg gtagaattgt tcagaatttg tgatggatat 480
tgtaattgat tgaaagagtg acacttcaaa gtttgtttca ttttggcaga aatactgttt 540

```

```

tttttccctcc ctgtagtggg ttgtatcccc tgcagaaaaa gctaaatatg atgaaatctt 600
cctgaaaact gataaagata tggacggatt tgtgtctgga ttggagggtcc gtgaaatatt 660
cttgaataaca ggtttacctt ctaccttact agcccatata tggtaagact ttatttgaat 720
tgattttttaa aaaatatggt tttgtatcaa ttccagtttc tgcattttga ttttttagtca 780
tttgtaataa ggacagtttt tgttttcagaa ttttttatag agaaaatcag aatctgaaga 840
attcttcttg ctaatggaca aaagcttgag aatgggttac ctgaagcttt ataagattga 900
cagcatccgc tgggcatggg ggctcacgcc tghaatccca gcactttggg aggccgaggt 960
gggtggatca cctgaggtcg ggagtttgag accagcttgg ctaacatggt gaaaagctgt 1020
ctctactaaa aacacaaaaa attagccaga catggtggtg tgcgcctgta gttccagcta 1080
ctcgggaggg tgaggcgagg gaattgcttg aacctgggag gtggagggtg cagtgaagctg 1140
agatcacgcc attgcactcc agcctgggca acaagaatga aactccatct c 1191

```

&lt;210&gt; 380

&lt;211&gt; 1187

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 380

```

aaagtctgct tctgattctt ctggaaaaca gtctactcag gttatggcag caagtatgtc 60
tgcttttgat cctttaaaaa accaagatga aatcaataaa aatggttatgt cagcgtttgg 120
cttaacagat gatcagggtt cagggccacc cagtgtctct gcagaagatc gttcagggaac 180
accgcacagc attgtttcct cctcctcagc agctcaccca ccaggcggtc agccacagca 240
gccaccatat acaggagctc agactcaagc aggtcagatg taccaacagt accagcaaca 300
ggcggtctat ggtgcacagc agccgcaggg tccacctcag cagcctcaac agtatgggtat 360
tcagtattca gcaagctata gtcagcagac tggaccccaa caacctcagc agttccaggg 420
atatggccag caaccaactt cccaggcacc agctcctgcc ttttctgggc agcctcaaca 480
actgctgctc cagccgccac agcagtacca ggcgagcaat tatcctgcac aaacttacac 540
tgcccaaaact tctcagccta ctaattatac tgtggctcct gcctctcaac ctggaatggc 600
tccaagccaa cctggggcct atcaaccaag accaggtttt acttcacttc ctggaagtac 660
catgacccct cctccaagtg ggcttaatcc ttatgcgcgt aaccgtcctc cctttggtca 720
gggctatacc caacctggac ctgggttatcg ataaggaggc tcctctacac caattaatgt 780
agctgctagc tattggcctc ccaaaagact ccagtactat tttaatttgt attgaagaag 840
ttcagaaatt taaaagcaga gcatttttta tgatatcatt gttggtgtta attgaaagta 900
taatttgctg gaacacaaag accaaaatga aagtttttct ctccttgctt aaaaatgtag 960
cagcttctta gttacttttg aacactactc ttacatgtat aaagtgattg acttgacttt 1020
ctagcttccc ttgtccggag gatattaaaa tgcttgggtg aggttttagcc atcttacttg 1080
gctttttact attaacatga tgtactaaag tagagccctt tgagaataca agatattatg 1140
tataaaatgt aacactgatg atagggtaat aaagatgatt ggatccc 1187

```

&lt;210&gt; 381

&lt;211&gt; 1515

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 381

```

gcgcattgga cttcttgacc ctgcgtggct ggagcagcgg gatcgctcca tccgtgagaa 60
gcagagcgat gatgaggtgt acgcaccagg tctggatatt gagagcagct tgaagcagtt 120
ggctgagcgg cgtactgaca tcttcggtgt agaggaaaca gccattggta agaagatcgg 180
tgaggaggag atccagaagc cagaggaaaa ggtgacctgg gatggccact caggcagcat 240
ggcccgagcc cagcaggctg cccaggccaa catcacctc caggagcaga ttgaggccat 300
tcacaaggcc aaaggcctgg tgccagagga tgacactaaa gagaagattg gcccagcaa 360
gccaatgaa atccctcaac agccaccgcc accatcttca gccaccaaca tcccagctc 420
ggctccaccc atcacttcag tgccccgacc accacaaatg ccacctocag ttctgtactac 480
agttgtctcc gcagtacccg tcatgccccg gcccacaatg gcatctgtgg tcgggctgcc 540
cccaggctca gtgatcgccc ccagtccgcc catcatccac gcgccagaa tcaacgtggt 600
gcccattgct cctcggcccc ctctatttat ggccccccgc ccacccccca tgattgtgct 660
aacagccttt gtgctgtctc cacctgtggc acctgtccca gctccagccc caatgcccc 720
tgttcatccc ccacctcca tggaagatga gccacctoc aaaaaactga agacagagga 780
cagcctcatg ccagaggagg agttcctgcy cagaaacaag ggtccagtgt ccatcaaagt 840
ccagggtccc aacatgcagg ataagacgga atggaaactg aatgggcagg tgctggtctt 900
caccctccca ctacggacc aggtctctgt cattaagggt aagattcatg aagccacagg 960
catgcctgca gggaaacaga agctacagta tgagggtatc ttcatcaaag attccaactc 1020
actggcttac tacaacatgg ccaatggcgc agtcatccac ctggccctca aggagagagg 1080
cgggaggaag aagtagacaa gaggaacctg ctgtcaagtc cctgccattt tgctctcct 1140

```

```

gtctcccacc cctgccccca gaccagagg ccccccctgag gctttgcctt gcctgcatat 1200
ttgtttcgct cttactcagt ttgggaattc aaattgtcct gcagagggtc attcccctga 1260
ccctttcccc acattggtaa gagtagctgg gttttctaag ccactctctg gaatctcttt 1320
gtgttagggg ctgatttga ggacattcat ttcttcagca gccatttagc aactgagagc 1380
ccagggatgt ccnacaggat agtttcatag tgacagggtg cacttggtta atagaatatg 1440
gctgatattg tcattaatca ttttgtacct tgacatgggt tgtctaataa aactcggacc 1500
cttcttgggt aatct 1515

```

&lt;210&gt; 382

&lt;211&gt; 2646

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 382

```

tgtggacaaa gtggactctt agaaaactgt atggaaatgc actgatatag acctccagaa 60
gtcttgtatt gttggaggaa aaagaaaaag tcatggaaac tccttttagta ttgactgcaa 120
tgtctgtact tgttttgcct gcaatttgggt gtgctctacc cgcctttgcc tcagttagca 180
cagttcagaa gatgaccgtc gtaccttcac aggtctgccc tgtaactgtg cagatcagtt 240
tgtccctgta tgtgggcaga atgggcgcac ttaccccagt gcctgcattg ctgctgtgt 300
gggcctccaa gaccatcagt ttgagtttgg atcatgcatg tcaaaggatc catgtaatcc 360
taatccctgc caaaaaaacc aaagggtgcat acccaaaacca caggctctgcc tgacgacttt 420
tgataaatct ggatgtagcc agtatgagtg tgtaccaaga cagctcgctg gtgaccaggt 480
ccaagatcct gtttgtgaca cagaccacat ggagcacac aatctctgca ctttatacca 540
aagaggaaaa agcctctott acaaagggtc ctgccagccc ttttgcagag caaccgagcc 600
cgtatgtggg cacaatgggt agacctacag cagtgtgtgt gctgcctact cggatcgctg 660
ggcagtcgat tactatgggg actgccaggc cgtcggagtc ctctcagagc acagctccgt 720
cgccgagtgt gcttctgtca agtgtccttc gctcttggca gctggatgca aacccatcat 780
cccaccgggt gcttgttgcc cattatgtgc tgggatgtta agagttttat ttgacaaaaga 840
aaaactggat actattgcta aggtaacaaa taaaaagcca ataacagttc tggaaatact 900
tcagaaaaac cgcatgcacg tgtctgtccc acagtgtgat gtgtttggat acttcagcat 960
tgaatcagaa attgtgatcc tgatcattcc cgtcgatcac tatccaaaag ctctgcagat 1020
tgaagcctgc aataaagaag cagagaagat tgagtccctt atcaactctg acagcccagc 1080
tttggcgtcc catgtccctc tctctgccct catcatttcc aggtacaggt cttcagcagt 1140
gtgccatcgg ccggtgtcag ggccaggcct tcttgccact ccttctctct ttcctcact 1200
tgggccttyc cttgcacttg ctctggacat ataactgact gccacggaa agtgacagaat 1260
gtcctccac ctcactctcc tgccttgaaa aagacattca ggactgctgg tttgtagttg 1320
aatattggcc aaggaaaggc acatgtcacc tctattcgcc acacagtatt ttttttttta 1380
atccgccaat attagtagga tttttgtttt gtttttataa atgttaaaat gtgttgttcc 1440
aaataactat gaaaacagaa tgtctcttcc ttgtagacca ctgccatag atttacctt 1500
cctcaccata aggggtcccc actctaaagc aaatttatcg ctgggaaatg agatgaccac 1560
tttttagaaa gataattcac tggactatca gggtcacaaa cttcatttca gaggttcttt 1620
tgaagtattt aagggtcccg ttgcatttgt tttgtttaca gataattacc tactctggct 1680
agaagctagg ggtcccagtg aagagccact gccattaaag aatatgaaac atagataaaa 1740
catctttgaa attatgtaaa ttatgtaaat tatcaggcaa atttgcatta aattacagaa 1800
atttaattca gaaccccaac tactgtgtta tgcaaaagca agctgattaa atgacactca 1860
tataattata tgttgaagc aacaggctca ctggtcacgg atttgtgtct gtgacttttg 1920
tgaaagggag aagtgcatt gcatcaaagc atcttgcat atgcaatttt tatattaacc 1980
agatatatat tcatcgggat tcatccaagt taaatgtaga gtttttaaac atcaatcttt 2040
aaaccaattg ctgctactta tataattgcc aaaaagtga ataatgtgta gttcatgtaa 2100
ataatacatt atatttctat tttattatga agaagggtga tagccatatt tgtaaatgac 2160
atcatgtgt gtaacccag tgccttccat tcgtgaaaac acatttgcct tttgtgatat 2220
gcacaatgta gataagtgt ctgtctgact ttcttttttg atatagaagt ataaagaatt 2280
gtggtttata tatttaaaag tgtcaagctg agtattaaaa tgtatgcatg ttgtctaaga 2340
aattgaatac tttgaatgtg tttcacagtt tgaaataagc tatttgatgt aatacttctt 2400
gtgtgtatgc acatgaactt agattttaca tgaagtattt tttcagtatt atatgtaccc 2460
tctgaaatac atagggatat gcgtattata ccaaatgtt gctgaaaaat gggcacttaa 2520
agctttcaga atatgtcagt gctgatgtag catgcttgtt gcaattgcct ttttctgta 2580
taaagtctct taatgcaata tactggaaag ctttctatt ttaataaaaa taatttttat 2640
atgacc 2646

```

&lt;210&gt; 383

&lt;211&gt; 1319

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 383

```

cggggctccg gagcgcctcg ctcccgacac ggctcacgat gcgcggcgag cagggcgcg 60
cgggggcccg cgtgctccag ttactaact gccggatcct gcgcggaggg aaactgctca 120
gggaggatct gtgggtgcgc ggaggccgca tcttgaccc agagaagctg ttctttgagg 180
agcggcgctg ggcgcgacgag cggcgggact gcggggcgcg catcttggtt cccggattca 240
tcgacgtgca gatcaacggt ggatttgggt ttgacttctc tcaagccacg gaggacgtgg 300
gttcgggggt tgcctcgtg gcccgaggga tcctgtcgca cggcgtcacc tccttctgcc 360
ccaccctggt cacttcccca ccggagggtt atcacaaggt tgttcctcag atccctgtga 420
agagtgggtg tcccatggg gcagggggtcc tcgggctgca cctggagggc cccttcatca 480
gccgggagaa gcggggcgcg caccocgagg cccacctccg ctcttcgag gccgatgcct 540
tccaggactt gctggccacc tacgggcccc tggacaatgt ccgcatcgtg acgctggccc 600
cagagtggg ccgtagccac gaagtgatcc gggcgctgac ggcccggtgg atctgcgtgt 660
ccctagggca ctcatgtggt gacctgcggg cggcagaggga tgctgtgtgg agcggagcca 720
ccttcatcac ccacctctt aacgccatgc tgctttcca ccaccgagc ccaggcatcg 780
tggggctcct gaccagcgac cggctgcccc caggccgctg catcttctat gggatgattg 840
cagatggcac gcacaccaac ccgcgcgcc tcgggatcgc ccaccgtgcc catccccagg 900
ggctggtgct ggtcacgat gccatccctg ccttgggctt gggcaacggc cggcacacgc 960
tgggacagca ggaagtggaa gtggacggtc tgacggccta cgtggcaggc tgcagcatgg 1020
agtccggcct ggaggctgca tccctgcacc ccgcccagtt gctggggctg gagaagagta 1080
aggggaccct ggactttggt gctgacgag acttcgtggt gctcgacgac tcccttcacg 1140
tccaggccac ctacatctcg ggtgagctgg tgtggcaggc ggacgcagct aggcagtgc 1200
aaggacctcg gctgagagga cacctggcgc cagcgggatg ccacagggc cgggtggttg 1260
gggagctggt ctccagggag tgagtoggga gccctgctgg attgatgcc agggcctgt 1319

```

&lt;210&gt; 384

&lt;211&gt; 1386

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 384

```

tctaagtgc agaaggaatg gagaccctct tgggcctgct tatectttgg ctgcagctgc 60
aatgggtgag cagcaaacag gaggtgacgc agattcctgc agctctgagt gtcccagaag 120
gagaaaactt ggttctcaac tgcagtttca ctgatagcgc tatttacaac ctccagtgg 180
ttaggcagga ccctgggaaa ggtctcacat ctctgttgc tattcagtc agtcagagag 240
agcaacaag tggaagactt aatgcctcgc tggataaatc atcaggacgt agtactttat 300
acattgcagc ttctcagcct ggtgactcag ccacctacct ctgtgctgtg aggcctatg 360
ggaacaacag actcgtttt gggaagggga accaagtggg ggtcatacca aatatccaga 420
acctgaccc tgcctgttac cagctgagag actctaaatc cagtacaag tctgtctgcc 480
tattcaccga ttttgattct caaacaatg tgtcacaag taaggattct gatgtgtata 540
tcacagacaa aactgtgcta gacatgaggt ctatggactt caagagcaac agtgctgtgg 600
cctggagcaa caaatctgac tttgcatgtg caaacgcctt caacaacagc attattccag 660
aagacacctt cttccccagc ccagaaagt cctgtgatgt caagctggtc gaaaaagct 720
ttgaaacaga tacgaacctt aactttcaaa acctgtcagt gattgggttc cgaatcctcc 780
tcctgaaagt ggccgggttt aatctgctca tgacgctgcg gctgtgggtc agctgagatc 840
tgcaagattg taagacagcc tgtgctccct cgctccttcc tctgcattgc cctcttctc 900
cctctccaaa cagagggaac tctcctaccc ccaaggaggt gaaagctgct accacctctg 960
tgcccccccg gcaatgccac caactggatc ctaccggaat ttatgattaa gattgctgaa 1020
gagctgccaa aactgctgc caccocctct gttcccttat tgctgcttgt cactgcctga 1080
cattcacggc agaggcaagg ctgctgcagc ctcccctggc tgtgcacatt cctcctgct 1140
ccccagagac tgctccgcc atcccacaga tgatggatct tcagtgggtt ctcttgggt 1200
ctaggtcctg cagaatgttg tgagggtttt atttttttt aatagtgttc ataaagaaat 1260
acatagtatt cttcttctca agacgtgggg ggaaattatc tcattatcga ggccctgcta 1320
tgctgtgtat ctgggcgtgt tgtatgtcct gctgccgatg ccttcattaa aatgatttgg 1380
aagagc 1386

```

&lt;210&gt; 385

&lt;211&gt; 2680

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 385

```

ggcgtctggt cttgcccagt ggctggggcc tctgctcttg gtttccctct ggggactctt 60
ggctccagcc tccttcttta ggcgcctggg tgagcacatt cagcagtttc aggagagctc 120

```

tgcccagggc	ctgggcctga	gcctggggcc	aggtgctgca	gccctcccaa	aagtgggggtg	180
gctggagcaa	ctgctggacc	ccttcaacgt	gtccgacaga	cgatccttcc	tacagcgtaa	240
ctgggtgaat	gaccaacatt	gggttggcca	ggatggaccc	atattcctgc	atctaggggg	300
tgagggcagc	cttgggcctg	gctcagtgat	gagaggccat	cccgcagcct	tggcccagc	360
ctggggcgcc	ctgggtgataa	gcctggaaaca	cagattttat	ggcctgagta	tacctgctgg	420
aggcctggaa	atggcccagc	tccgcttctt	gtccagccgc	cttgcgctgg	ctgatgtggt	480
ctctgcccgc	ctggcacttt	cccgcctctt	taacatctcc	tctccagcc	cctggatctg	540
cttcggaggc	tccatgccc	gctccttggc	cgctggggcc	cggtgaagt	tccccatct	600
cattttcgcg	tgggtcgct	cctccgccc	ggtcgggcc	gtgctggatt	tctccagta	660
taatgacgtg	gtatcccga	gcctaagag	caccgcgatc	ggcgggtccc	tggagtgcg	720
ggcggcggtg	tccgtcgct	tgcgtgaagt	ggagcggcgg	ctgcgctcgg	gtggggcggc	780
tcaagcagca	ttgcggacgg	agctgagcgc	ttgcggggcc	ctgggcccgc	ctgaaaacca	840
ggcggagctg	ttggggggcg	tgcaggcact	ggtgggaggt	gtagtgcagt	atgatgggca	900
gacgggagcg	ccgctaagcg	tgcgacagct	ctgcggactt	ctcctcgggg	gcggggggcaa	960
ccgcagccac	tccacgccc	actgcgggct	tgcgggcg	gtgcagattg	tcttgacag	1020
cctggggccag	aagtgtttta	gcttttccc	agcagagaca	gtggcacagc	tgaggagcac	1080
agaacctcaa	ctgtctgggt	tgggtgaccg	gcagtgggtt	tatcagacat	gtaccgagtt	1140
cggcttctat	gtcacctgtg	agaatcccag	atgtccttcc	tcccagctcc	cagcactgcc	1200
ctcccagcta	gacctatgtg	agcaggtgtt	tgggctctca	gccttgtcag	tagcccaggc	1260
tgtggctcag	acgaactcct	actacggtgg	ccagacccct	ggggctaaca	aagtgtctgt	1320
tgtaaatggg	gacacagacc	cctggcatgt	gctaagtgtg	acacaggctt	taggatcctc	1380
agaatcaact	cttcttatcc	gcactggctc	ccactgcttg	gacatggcac	ctgagaggcc	1440
ctcagactcc	ccagcctcc	gcctaggcgg	ccagaacatc	ttccagcagc	tacagacctg	1500
gctcaagctg	gcaaaggaga	gccagattaa	gggtgaagtc	tgaatctcat	accctttcca	1560
ctcctgcact	ggtcacctca	gtcctggaca	tacttggtca	ctgaacaaaa	gaaagcagct	1620
tgttttgaaa	gaagaaactc	ccaggaattg	gaattcagca	cctgttccgc	acgtaattgg	1680
catgtgtctg	caaacatcct	tattcccac	ttaaagtgt	ttattgcaga	gagttatgga	1740
aataaagag	gatgattatt	ctcattgaaa	tattggtatt	ttgaatgtta	aatgtcaaac	1800
aaatgtgact	tatgctgggt	ccctcgccct	gctgatcaga	ttgtggttca	aattctgcca	1860
ctccagctcc	tgggttaggg	gctctgcagt	aagtttcttt	ttctggactt	tagatcctga	1920
acctgtcctt	gcttctcagt	ttctctcact	gtaccccttt	ccctcagtct	cttctctctt	1980
ctttcccttg	tactatttg	tctttcta	ctccttctgt	ttctctgaat	atcttcat	2040
ctatctctgt	gtttctgtct	atttctctgt	ttatctttct	gtccttcaat	ctgtgttttt	2100
gtttctggct	ctccgtcagt	gtctttttct	ctcctctctc	tcttctctct	ccatggctat	2160
ttccactgct	ctatttctga	ctctcatttt	tggctctctg	gtgtctccta	gtcactttct	2220
ttctcactct	gtctctgtct	ctatttctgt	ctctcctctg	ctgtgtctct	aattctctct	2280
tctccctgag	gctctatttc	tgtctctcct	ctgctgtgtc	ctcaatctct	ctgtctccct	2340
gaggtcttat	ttctgtctct	gatgtctctc	ttctgtgtct	ctatttctct	tctgtcact	2400
taatcttttc	cttctctatc	tctcttattt	agtcttccct	ccacaccctt	cactcaccat	2460
cttttccac	aatcaaatat	cactccctgg	tacttccagc	ttccaaactct	agggattcat	2520
gattctgggtg	gagattcctt	cttccagggc	ctgggaggat	agggctaate	ccaagggtgc	2580
ctgcttaggc	tatgttagct	gtgacaggaa	cctgccatag	atttgactg	ttctttccta	2640
aagatcaatt	attttcagca	ataaatactt	ctcagctttt			2680

&lt;210&gt; 386

&lt;211&gt; 2076

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 386

atcgtgaggg	tactgaaact	ttcgtgacc	accgggaggg	catcctgaag	actgcgaagg	60
tgctgggtgga	ggacaccaag	gtcctgggtc	aaaacgcagc	tgggagccag	gagaagttgg	120
cgcaggctgc	ccagtcctcc	gtggcgacca	tcaccgcct	cgctgatgtg	gtcaagctgg	180
gtgcagccag	cctgggagct	gaggaccctg	agaccaggt	ggtactaatc	aacgcagtga	240
aagatgtagc	caaagccctg	ggagacctca	tcagtgcac	gaaggctgca	gctggcaaag	300
ttggagatga	ccctgctgtg	tggcagctaa	agaactctgc	caaggtgatg	gtgaccaatg	360
tgacatcatt	gcttaagaca	gtaaaagccg	tggagatga	ggccaccaaa	ggcactcggg	420
ccctggaggc	aaccacagaa	cacatacggc	aggagctggc	ggttttctgt	tccccagagc	480
cacctgcca	gacctctacc	ccagaagact	tcatccgaat	gaccaagggg	atcaccatgg	540
caaccgcaa	ggccgttgct	gctggcaatt	cctgtcgcca	ggaagatgtc	attgccacag	600
ccaatctgag	ccgccgtgct	attgcagata	tgttccgggc	ttgcaaggaa	gcagcttacc	660
accagaagt	ggccctgat	gtgcggcttc	gagccctgca	ctatggccgg	gagtgtgcca	720
atggctacct	ggaactgtg	gaccatgtac	tgtgacctt	gcagaagcca	agcccagaac	780
tgaagcagca	gttgacagga	cattcaaagc	gtgtggctgg	ttccgtcact	gagctcatcc	840

```

aggetgctga agccatgaag ggaacagaat gggtagaccc agaggacccc acagtcatcg 900
ctgagaatga gctcctggga gctgcagccg ccattgagggc tgcagccaaa aagctagagc 960
agctgaagcc ccgggccc aaaagggagg cagatgagtc cttgaacttt gaggagcaga 1020
tactagaagc tgccaagtcc gttgcagcag ccaccagtg cactggtaaag gctgcgtcgg 1080
ctgcccagag agaactagt gcccaggga aggtgggtgc cattccagcc aatgcactgg 1140
acgatgggca gtgggtccag ggcctcattt ctgctgccc gatgggtggc gcggccacca 1200
acaatctgtg tgaggcagcc aatgcagctg tacaaggcca tgccagccag gagaagctca 1260
tctcatcagc caagcaggta gctgcctcca cagcccagct ccttgtggcc tgcaaggctca 1320
aggctgacca ggactcggag gcaatgaaac gacttcaggc tgctggcaac gcagtgaagc 1380
gagcctcaga taatctgtg aaagcagcac agaaggctgc agcctttgaa gagcaggaga 1440
atgagacagt ggtgggtgaaa gagaagatgg ttggcggcat tgcccagatc atcgagcac 1500
aggaagaaat gcttcggaa gaaacagagc tggaaagggc gcggaagaaa ctggcccaga 1560
tccggcagca gcagtacaag tttctgcctt cagagcttcg agatgagcac taaagaagcc 1620
tcttctattt aatgcagacc cggcccagag actgtgcgtg ccactaccaa agccttctgg 1680
gctgtcgggg cccaacctgc ccaaccccag cactcccaa agtgctgcc aaaccccagg 1740
gcctggcccc gccagtcctc gcagtacatc ccctgtccc tcccacccc caagtgcctt 1800
catgcccctag ggccccccaa gtgcctgccc ctcccagag tattaacgct ccaagagtat 1860
tattaacgct gctgtacctc gatctgaatc tgccggggcc ccagcccact ccaccctgcc 1920
agcagcttcc agccagtcctc cacagcctca tcagctctct tcaccgtttt ttgatactat 1980
cttccccac cccagctac ccataggggc tgagaggtta taagcccaa acaggtcatg 2040
ctccaataaa aatgattcta cctgctagga aaaaat 2076

```

&lt;210&gt; 387

&lt;211&gt; 459

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 387

```

gcattttagt caatttaaaa ataaaatatt taaaattatt taaattgttt tggacgcttc 60
aattgtatta tatgtgattt acatttcact tttttgttg gcgttggtta cccggagagt 120
gctcctgtat tgaactttgc tgttagttat tttattgctt ctttttgagg agtgctataa 180
aagactattc taatgaaaac attaaaattt acaatttgac atacaaaaag gggttgtcca 240
ttgattttta ccaatgtagc actgagagag agagagggtta attatagata gacaagagtg 300
gtgtttgttg tttttccct cccagcattg aaatcattgg ggcttgcag atgtattaaa 360
aaaagatttg ttgtgctatt gctgcaaaac cttaataact agaggagaat ttaaacaatg 420
cattttatat tattgtaacc aataaaaaac tttctaccc 459

```

&lt;210&gt; 388

&lt;211&gt; 1341

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 388

```

acatttattg tgtcaatggt aagcacactt tttaaaagac aacatagaat gtatagaaac 60
aaggggttgg ggactcatgc gcatttcac aatacaggta attagggttg ctggtttcag 120
aagggccagg gcactactca tgacagcgat ggtccacggg ccctctctat gggactgatt 180
cactgttcca atgtgggtct gttttttgt tttactttt tattaaaaaa tataaataaa 240
atggcgctgc aggcctaggc tggaggagct ctgcaggact ctgtcttcgc acaacggctt 300
cttggaggct actgtcagaa aacatcacia actagcagga tgacagacca cgctgacgtc 360
gactgggagg cagcggtcca cccacccct gggggcttca aattttctca gaacttaagg 420
gctctcgagc ttccatccga aaactgccac acatcttgag ctctctgggt actacgccga 480
atgggggtgt gtgaagaacc cgggggttca ggggacttcc gtgttcgctt tctaagtaga 540
ttcttaatcc atgagtgttc tgtgcgtgtt gcaagagaaa ccatgcactg gtgaatggct 600
gtttgcaagt tgtacatgtg tagctgctgg gctcatctt acaaataccc tgcggggcat 660
attctgcact catcccaggc gtggggatta gagctccatg tgcagaacga ggggaggaga 720
ggcccccca gtgcagaagt ttatctgcta tgtgttctct tttggggcaa attcctctag 780
atgacgttga taaacaatcg tcatctctcg gcgtgacct gatgccaacc tccacgggat 840
tggatgcttt tttcatctcg attggtgaag gggagagtg cttatocaca gctttttcta 900
agcagaggct gccattgcat tgtttccgtt tgtgctcgat aaaaataaga atgtcccca 960
atgggaagt catctggcac tgcccacagg tgaggaggtc atgatccct tctggagctc 1020
ccaacgggccc gtggtctggt tcatcatctg taagaatggc ttcaaggagg tcgggagaga 1080
attcccgttt gcttaagtgc tgggggttgc ctgcttgcg gcgagacatg gtgggctcg 1140
gggaggggcg cggcgggcg gcggggcg gacggctcgg ttcatctcg 1200
gagagccggg ttagaaagaa ggagactcca gagaaatat cttcatcagt gccttttgac 1260

```

atccaaaata aattagaaat aatacaaaaga tggcgcaggg aagatgaatt gtgggagagc 1320  
 cgtcatggct tttttttaag c 1341

<210> 389

<211> 891

<212> DNA

<213> Homo sapiens

<400> 389

tttttttcta ttttttttta ttaacaagca acataatcaa aaacaaaaac acaacaacct 60  
 taaagctgaa acagcaataa gtcaaactgc tgccgcagtt catggatgta cctgggggtac 120  
 atgctccctc attgcgagggc aggacgtagg cacatgactg tgcatttagg catatatgtg 180  
 accaagaaga aggagagaaa tggaaaacac tggagaacag aaagtatcag gaacttttca 240  
 tcaggcaatc ccaaagcgct ctgctctttt cctctctttt gcctctgtat cctctgtggg 300  
 tccaagttcc agctgaactt gtgacaatcc caaatcgctc cttoctcttt ttcagtttct 360  
 catcatcttc agactttctg gagattgaag agacattcaa accaaatctt tgagctcttt 420  
 ccttcagctt atccaagtta accatagggt tggatcaga tgacagacct tttgttgga 480  
 ctgaagaaat cccaaacctg gctgcccagc cagctttctt actotccaag ctcacaggta 540  
 cattgaatcg ttcagccctc ttctgcattc tctcagctcg tggatattca gatgtaattt 600  
 tcaccacttt ctctctgctg gccacatcaa cagttttttc aggggggttct tctctttga 660  
 caggagctc aatgggcttt gtttctctt atctctgtt atctccagt acatcttctt 720  
 catttgctc ctcttcagca tgttcttcaa gatagcctg gactctgtgg ataagatctt 780  
 gctttattcc cttggtctcc aaaccacgag caagacattc ttgctttagt tcggcaagct 840  
 ttagcttatg gagctccacc gtctcggtcg ccatctgtt acccttagaa a 891

<210> 390

<211> 1966

<212> DNA

<213> Homo sapiens

<400> 390

gccagaatct ggccgggttc tgagcttggt ccgctccct ccccgaggaa tggcgctatc 60  
 cggttcgacc cggccccgt gctgggagga ggatgagtgc ctggactact acgggatgct 120  
 gtcgcttcac cgtatgttcg aggtgggtgg cgggcaactg accgagtgcg agctggagct 180  
 cctggccttt ctgctggatg aggtccctgg cgccgcggga ggcttagccc gggcccgag 240  
 cgccctagag ctctgctgg agctggagcg ccgcccagc tgccagaga gcaacctgcg 300  
 gctgctgggg caactcctgc gcgtgctggc ccgccacgac ctgctgccgc acctggcgcg 360  
 caagcggcgc cggccagtgt ctccagaacg ctatagctat ggcaacctca gctcttcaa 420  
 gaggacagag ggtagctgcc gtgcgcgtcg gcagtcaagc agttctgcaa attctcagca 480  
 gggctcagtgg gagacaggct ccccccaac caagcggcag cggcggagtc gggccggcc 540  
 cagtgggtgt gccagacggc ggccgagagg ggccccagc gcacccagc agcagtcaga 600  
 gcccgccaga ccttctctg aaggcaaatg gacctgtggc tgtacaagaa gcagggtgcc 660  
 agcatctgct tctgttgagg acctccgaa gcttccattc atggtggaag gccaaaggga 720  
 gcaggcttgt cacatgacat ccggctccgg gttcagcag agtactgca gcatgggcca 780  
 gccttgagc agggcggtgg atcccggcg cccagggcg tggcgggca gctggacgtg 840  
 tttgggcagg ccaccgcagt gctgcgtca agggacctgg gctctgtggg ttgtgacatc 900  
 aagttctcag agctctccta tctggacgcc tctggggcg actacctgag tggcgccctg 960  
 ctgcaggccc tgccggcggt gttcctgact gaggccctgc gagaggctgt gggccgggag 1020  
 gctgttcgcc tgcgtgctcag tgtggatgag gctgactatg aggtggccg gcgcgcctg 1080  
 ttgctgatgg aggaggaagg gggggcgccg ccgacagagg cctcctgac caggactggc 1140  
 aggtattgat ccacctcaa gtctccggc cacttctcc tgggaggacg acctctcta 1200  
 cccctagagg actgtcactc tagcatcttt gaggactgcg acaggaccgg gacagcaggc 1260  
 cccttgacag cccctccac aggtatgtgg ctctgaggcc taaaccattt ccagctgagt 1320  
 ttcttccca gactcctct acccccagg gtgccccctt agcctccgga ggcgggggct 1380  
 ttgtatctct gatcttgggc tgtctgcact gtcacagggt cacacactcg ctcatgctca 1440  
 cactgcccct gctgagatct tccctgggccc tctgcctgg cctgcttccc agcacacact 1500  
 tctttggcct aagggtctct ctctcaggac ctctaatttg accacaacca acctgggctt 1620  
 cagccacatc agtgggcact ggagctgggg tgcacatggg gcctgctcac cttggccaca 1680  
 catctccagc cagccagggc cctgcccagc ttcaatttac agacctgact ctctcacct 1740  
 tccccctgc tgtccagagc tgaacataga ctgacattg gatgtcacct ggagtgtcac 1800  
 atgggagtgt tatggcagca tcataccaag gcctactgtt gcacatgggg ccaaaaccag 1860  
 taaacagcca ccttcttga aagggaatgc aaaggccttg ggggtgatgg aaaagacctt 1920  
 ttacaaatga taccaattaa actgccctgg aaagggcata ggtggg 1966



<210> 391  
 <211> 1473  
 <212> DNA  
 <213> Homo sapiens

<400> 391  
 ctttcattga ccacattgct ggagatgagg atcacacaga tggagtagta gcttgtgctg 60  
 ctggactaat aggggactta tgtacagcat ttgggaagga tgtactgaaa ttagtagaag 120  
 ctaggccaat gatccatgaa ttgttaactg aaggcgagg atcgaagact aacaaagcaa 180  
 aaacccttgc tacatgggca acaaaagaac tgaggaaact gaagaaccaa gcttgatctg 240  
 ttaccattgg gatgataacc tgaggacccc cactggaaat ctcccatctt ttgaaaaacc 300  
 tggagagtga gagtgtgcac ggatgtgaa tgtttgggaa tgagaggatg agtgagtga 360  
 gcttgaaaac acaccacatt gaaaatcctg ccacagcagc agccgcagcc gccaacagca 420  
 gcgctgttag tgagctaagt aagcactgac ttcttagaaa accataacat cggccatctt 480  
 ggaaaagaga aaaacaatgg agttacttat ttaaaaaaaa agaaagaaag ttatctcttc 540  
 ccaggagagg ctagaagtga cttttctgtc ttttggccag tgccgagtgg aatgcctggg 600  
 ttgggggagg agggaggact ggggtcagct gtgtgtcttt gttgtaaaag gcagcctggc 660  
 ctttgcctact gaggagaaag atggagcctg ggtctcaagc ccaccttcgc tgtacctttg 720  
 ccacatggta ctgtatgctt gccagctaga agggagggtca gggatttttt acagtctgag 780  
 aatgagtgtg tgtgagtga gcggtatcca cattctcaac ttcaagtcac tgcagtttct 840  
 ttttcccgca aaacaagggg ttagatgttg catttcataa aactaaccga agttctgtct 900  
 actgatgcag cacaagagat gttaaaaaaa aaaaaaaaaa aaaccacaca 960  
 cacagaggaa agacgctctt taggttttgt tttgtttttt tttttttggg tttgtttttt 1020  
 gtttttttta ctctagggaa aacactgacg aatggtcaga gctcctatcc tgatcttttc 1080  
 atcaaggcgc ctttcctaata aatatggttc aactgtgaat gtagaagtgg gggggagggg 1140  
 ggagaaaaag aaaactctgg cgttagagga tatagaaaaa tataagtaca attgttaca 1200  
 ataacgcaga cttcaaaaac aaaaaaatca caaccacaaac aaaccacaaat ttaaatgac 1260  
 agaattggca gcacaaagaa aacgcctctc cctgacttgt attgtggcag tctgaacgcc 1320  
 ccagaaaaat tgtgccaaag agtttagaaa aataaatatc caataaaagt aaacacatac 1380  
 acacaaaaca gcaaaactca ggtaactatt ttggattgca aacaggataa attaaatggt 1440  
 caaacaatct gataaaataa ccatttggaa cct 1473

<210> 392  
 <211> 1325  
 <212> DNA  
 <213> Homo sapiens

<400> 392  
 atcgggtattg catgaagtca tggaaacagca gactctgtcc attgcaaagg ctgggatcat 60  
 ctgtcagctc aatgcgcgca cctctgtcct ggcagcagca aatcccatg agtctcagt 120  
 gaatcctaaa aaaacaacca ttgaaaacat ccagctgcct catactttat tatcaagggt 180  
 tgatttgatc ttctctatgc tggaccctca ggacgaagcc tatgacaggc gtctggctca 240  
 ccacctggtc gcaactgtact accagagcga ggagcaggca gaggaggagc tcctggacat 300  
 ggcggtgcta aaggactaca ttgcctaocg gcacagcacc atcatgccgc ggctaagtga 360  
 ggaagccagc caggctctca tgcaggctta ttagacatg aggaagattg gcagtagccg 420  
 gggaatgggt tctgcatacc ctgcacagct agagtcatta atccgcttag cagaagccca 480  
 tgctaaagta agattgtcta acaaagttga agccattgat gtggaagagg ccaaacgcct 540  
 ccatcgggaa gctctgaagc agtctgcaac tgatccccgg actggcatcg tggacatatc 600  
 tattcttact acgggggatga gtgccacctc tcgtaaacgg aaagaagaat tagctgaagc 660  
 attgaaaaag cttattttat ctaagggcaa aacaccagct ctaaaatacc agcaactttt 720  
 tgaagatatt cggggacaat ctgacatagc aattactaaa gatatgtttg agagacactg 780  
 cgtgccctgg cagatgatga tttcctgaca gtgactggga agaccgtgcg cttgctctga 840  
 agccttgtga gcaaggagg ctccctgcat gtcctgcttg ctgcacgcca catgggtgtg 900  
 gtctgcatct cagttggccg ccatcagtggt taatagagct taaagtcag gtttggctgc 960  
 ataaaaattt tcttacttgg gttcaatttt ttagtggaag tttctgtttt catttttttc 1020  
 acgtttataa taaaaatact atgtggccg ggcgcggtgg ctcacacctg taatccagc 1080  
 actttgggag gccaatgtgg gtggatcatg aggtcaggag ttcaagacca gcctggccaa 1140  
 gatggtgaaa ccccgctctc ggtaagata acaaaaaatt agctgggctt gatggcatgc 1200  
 gcctgtaatc ccagctactc ggggggttga ggcaggagaa tgccttaaac ccaggcggca 1260  
 gaggttgcag tgagccaaga tcgcgcncct gcaactccagc ctgagcaata gagtgaagact 1320  
 gtccc 1325

<210> 393

&lt;211&gt; 2546

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 393

```

ctgatgtttt cctatcgcca gcggtgcttt taagggtccc gtttccagtt gttcgttggg 60
agcatataga atttattgac cttgtgtttt gcaccttcac gaaactcact tactggatct 120
caaagctctg tcggttcttt ggggttttct gcgtggacag cccatgtctg tcagtgggtc 180
cgtctctcgt ctctcttttc accctctctg gtacgttact tcctttctct tgcccgctgc 240
atggctcgga acccgaggg agatgtggtg gatgtcaggg cagaccacgg ccagccttga 300
gtgagccctg ctgggttctg tgccgtcctc gttcccagtc ctgggggacg tctccctca 360
tgcagacggc aagcacgcac aaagagcgag gaagaactcc ctcttctctg tctgcggggg 420
ctttctcgca gtggggggcg aatttctcag atgctttcgc tccgtgggtc ctctgtgtgt 480
ccatcacagc agttacactg agtcattttc agccagcctc gtgttcccag gatatactt 540
gccagtgcat gtgttatcct cacatattac tggattctct ttgcagagat tatctgtagt 600
attttattat ttttttgag acagggctct gctgtgtcac gcaggctgga gggcattggc 660
gcaactcgga ctcactgcac cctccacctg ctgggcttaa ggaatcctcg cactgagcc 720
ccccgagtag ctgggcttcc aggcacgcac caccacaccc ggctactttt ttgtattttt 780
ttgtagagat ggggtttcac cgtgttgccc aggttggctt tggatgectg agctcgaggg 840
ttctcccgcc ctcggtcccc caacgtgcgg gaattacagg cgtgagcccc cgcccagcct 900
tgagtgaact ttgctgggtt gtgtgtttcg gaaacttgcc cgttcccatc agtgggttat 960
tggttggtatt tctgtctcgt gactctgatg tctgcagaat ccagtgatag cgtctctcac 1020
gctcctgata ctgactttgt gtgtgatcag tgaggcgagg ggcgacgag gttcactctt 1080
cttcccaggg aaccacgggt gtttctcccc ttgttctgct tgttttctct gagtatcttc 1140
aggcagcgac gtgggcatg gacaccgcag ccgcgggctc tctgattttg gtgcagctca 1200
aaatactttc tggttaccgt tgggttcccc acccatgggt tccatggacg tgcattttta 1260
cccctgtccc cccatcagcc gcccggtccg attcctgcca agcagcacag gggccctgcg 1320
gcccaccctg gccgctctgt cctgtgtgtc cgtcctcctc gtgggtcattg tttgcacggg 1380
ggctctgacc tggcagccaa cctctgggtc cccacaactt cgcagtctct gccttctcct 1440
gtcggacacc ctaaggcagc tgtggcccc agacctagcc tggatgggtg tgcgctgtc 1500
cccaccacgg tctgtcacct ctgctcccc cctgaccagt gtccaccccc acggctgccc 1560
ggctttgtgt ctgcggcaca gccagcagca cgtgggggtc gactgccttc accgtgtcca 1620
cgcctgtccc ggcagtggga gctcaggtcc gtgggggtga ccgcggggag ctcagtgtcc 1680
ggctgtcggg gccgtcttgg aaagcagagg tgtccccaca ggatctctga gactctgtgt 1740
ggctcgtggc cgcgtctggg tccccggagc agcggccgac gtcactgccc agaccttaag 1800
ggaaggcgcg cgtccagtc tgcactgct gcgtgttctg gtcagaacgg aagtggtagc 1860
ctccactggg agcttctgtg ctttgggaga atgtgtctaa actgtgggtc tgtttgtctc 1920
ccagtccgtg tgggacacca cgaccagtt gtaaacacag gtcctgtgca gctcgtttt 1980
gggaaaaggc gcgcccggcc aggtcctctg tgtgtagctc acgcccgggg ctccgtcccc 2040
tcctgggtgg gttttcacct gcaccgcagg cccctcccc gggagcatte gtggagccgg 2100
cgtctctcagc caggagcgcg ttgctggctc agcggctgga gctcaaggtc ggctcagggg 2160
actgtctcgt gctggagggt ggcgcccgag cagcctgtgt tccccgaaa acggcccagg 2220
gctgtctccg cgctgtctgc cactcttct ccatccctc gttgcaggtt cgaggccgag 2280
ctcagccccg tggagcagaa gctgagtgc ctgcgtccc cgtggccca gaggcccttc 2340
ttcagggcgc cctcaccgct gggcgccgtg gacctgtacg agtacgcgtg cggggacgag 2400
gacctggagc cgctgtgacg ccacccgcga gaacgcgcgc gcggggccgc cccccacgtg 2460
ccaccacggg gccaccgcgg ctctgttaaa aactgttgtg gaaaatgagt gcgtttgtac 2520
ggaatgataa acttttattt attcac 2546

```

&lt;210&gt; 394

&lt;211&gt; 1432

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 394

```

tttttttttt ttttaaaatg ocaagataag aaacgattta ttatagagag aagaaaaatt 60
tctcatccaa aatatagaaa tctgtacaac tttgccacaa tcaatataca tgaactgtac 120
aaatttacac cagttcataa ttaccacaa aaaagatgac taacaaagtt cacaaaatag 180
atggtgggtt ttggaaaaga cttttaccca attaagtaca aggaaagtta caaacagac 240
ctccactttc taaaaataag aagtttactc agtcttagaa aactacaagc tagcaaatgt 300
acagagagct ggctgggtgt aacaccacag ttgagacagt gtctttttta gggctctttt 360
taaagcctgt tgccatggca gattctggtc acttgctact ttcaaggcca aaaacacaa 420
acaaggctct accatttccc caggtcatgc ttactagttt gtctttatgt acatttatac 480
atattttaagt gctaggtaaa agtcttgtaa aatttccagt actaccatgt ttaaaacgtt 540

```

```

taacttttctt attaaaagct gccgaaaagg ttaacaataa caacttttcaa gtgtaatagt 600
gcaaatttccc ctgcgagatt tactgcagag aaagatttctt tgaaatacag attttcttta 660
aaaggattga tgtaaaaatt taggtatgtc tgggagaaac tgaaaccacc ctaggacttc 720
cctccctagc aaataaagt atcatttact tggactcaca ggctattaaa attaatcatt 780
gaaaggctact gtccaaaacta tggcactgtc acttaaaaatt tttttttttt ttaccattct 840
atcttgtgccc agatcttcac agctgtgaca tgggtttaaat tccataatcc atccccaaaga 900
ggagcccacc caaagcaaaa atcaaattta tccatcatca tcagatgatc catccacaga 960
ctatatctta acctgataca gtcatcatat tgtagtttttt ggaagggctc gttctgccc 1020
agagaagttc ctctttacag ctgattcggc tgtctacccat ttgcacgttg gtgctgtttt 1080
gagtgttacc tctgtctggt gaggttctcat acagcacaca gatggagcca tctcttccaa 1140
ttctgtagga cacttcatag gggcacaacc agagtgtgag ttcacttggg agaagcctga 1200
acagctcctg actgtcctgt ccaatccgct gtgctgcctg tccaatcaga ggatccattt 1260
tatggttgat gcgaatacaa cggtaaccgg atcccttgca tggcttttctt gggaaccagt 1320
gatgtttata atgtttctata gaagaaaaga agaacagaga aacaacgctt aggatcgta 1380
gctcccactg cggattcttc ctaccccagg ctcttttgag ggcgaaaaat gt 1432

```

&lt;210&gt; 395

&lt;211&gt; 2431

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 395

```

aacaggccat gcatataatg tacagtgtat tacgtaataa tgtaaaagatt cttcaaggta 60
acaagggttt gggtttttgaa ataacatctt ggatcttata gaccgttcat acaatggttt 120
tagcaagttc atagtaagac aaacaagtcc tatctttttt tttttggctg ggggtggggc 180
attggtcaca tatgaccagt aattgaaaga cgtcatcact gaaagacaga atgccatctg 240
ggcatacaaa taagaagttt gtcacagcac tcaggattttt gggatatctt tgtagctcac 300
ataaagaact tcagtgtctt tcagagctgg atatatctta attactaatg ccacacagaa 360
attatacaat caaactagat ctgaagcata atttaagaaa aacatcaaca ttttttgctg 420
tttaaaactgt agtagttggt ctagaacaaa aatactccaa gaaaaagaaa attttcaaat 480
aaaaccctaaa ataatagctt tgcttagccc tgttagggat ccattggagc attaaggagc 540
acatattttt attaacttct tttgagcttt caatgttgat gtaatttttg ttctctgtgt 600
aatttaggta aactgcagtg tttaacataa taatgtttta aagacttagt tgtcagtatt 660
aaataatcct ggcattatag ggaaaaaacc tcctagaagt tagattattt gctactgtga 720
gaatattgtc accactggaa gttacttttag ttcattttaa ttttaattta tattttgtga 780
atattttaag aaactgtagag ctgctttcaa tatctagaaa tttttaattg agtgtaaaaca 840
cacctaactt taagaaaaag aaccgcttgt atgattttca aaagaacatt tagaattcta 900
tagagtcaaa actatagcgt aatgctgtgt ttattaagcc agggattgtg ggacttcccc 960
caggcaacta aacctgcagg atgaaatgc tatattttct ttcattgcact gtcgatatta 1020
ctcagatttg gggaaatgac atttttatac taaaacaaac accaaaatat tttagaataa 1080
attcttagaa agttttgaga ggaattttta gagaggacat ttctctcttc ctgatttgga 1140
tattccctca aatccctcct ctactccat gctgaaggag aagtactctc agatgcatta 1200
tgttaattga gagaaaaagc acagtattgt agagacacca atattagcta atgtattttg 1260
gagtgttttc cattttacag ttttatattc agcactcaaa actcagggc aagttttaac 1320
aaaagaggta tgtagtcaca gtaaatacta agatggcatt tctatctcag agggccaaag 1380
tgaatcacac cagtttctga aggtcctaaa aatagctcag atgtcctaag gaacatgcac 1440
ctacatttaa taggagtaca ataaaactgt tgtcagcttt tgttttacag agaacgctag 1500
atattaagaa ttttgaaatg gatcatttct acttgctgtg cattttaacc aataatctga 1560
tgaatataga aaaaaatgat ccaaaatatg gatgatgtg gatgtatgta acacatacat 1620
ggagtatgga ggaaattttc tgaaaaatac atttagatta gtttagtttg aaggagaggt 1680
gggctgatgg ctgagtgtga tgttactaac ttggccctga ctggttgtgc aaccattgct 1740
tcatttcttt gcaaaatgta gttaagatat actttattct aatgaaggcc ttttaaattt 1800
gtccactgca ttcttggtat ttcactactt caagtcagtc agaacttcgt agaccgacct 1860
gaagtttctt tttgaatact tgtttcttta gcactttgaa gatagaaaaa ccacttttta 1920
agtactaagt catcatttgc cttgaaagtt tctctgtcat tgggtttgaa gtagttagt 1980
tatgtctttt tctctgtatg taagttagt atattgttac tttcaaatac cgtacttttg 2040
aatgtaggtt tttttgtgtt ttatctataa aaattgaggg aaatggttat gcaaaaaaat 2100
attttgcctt ggacctattt cttaagcat aaaaaaaatg ctgagttttg cttgcattcc 2160
ttgagaatgt atttatctga agatcaaaac aaacaatcca gatgtataag tactaggcag 2220
aagccaattt taaaatttcc ttgaataatc catgaaagga ataattcaaa tacagataaa 2280
cagagttggc agtatattat agtgataatt ttgtattttc acaaaaaaaa agttaaactc 2340
ttcttttctt tttattataa tgaccagctt ttgggtattt attgttaacca agttctattt 2400
ttagaataaaa attgttctcc ttctaaaaaa t 2431

```

<210> 396  
 <211> 1111  
 <212> DNA  
 <213> Homo sapiens

<400> 396  
 gctaaatgtc tagaagcaga gaagtaaagt gagcaaaatc cagtgttgag gagtcatgac 60  
 agtactttga tctttatata ctctgaagca tttcttcaaa cttttctact tttatttgtc 120  
 attgatacct gtagtaagtt gacaatgtgg tgaaatttca aaattatatg taactttctac 180  
 tagttttact ttctcccca agtctttttt aactcatgat ttttacacac acaatccaga 240  
 acttattata tagcctctaa gtctttatct ttcacagtag ataatgaaag agtcctccag 300  
 tgtcttggca aaatgttcta gtatagctgg atacatacag tggagttcta taaactcata 360  
 cctcagtggc ctttaacaaa attgtgttag tctcaattcc taccacactg agggagcctc 420  
 ccaaataact attttcttat ctgcagtatt cctccagaag agctaaccag ggcagggtcg 480  
 gcatgagaag tgacatctgc gttacaaaagt ctatcttctc cataagtctg taaagagcaa 540  
 ttgaatcttc tagcttttagc aaacctaaagc caaaggaagg aaagccacga agaattgcaga 600  
 agtcaaaccc tcatgacaaa gtaggcacaa gtctacaata agctaaatca gaatttaca 660  
 atacaagtgt cccaggtagc attgactccc gtcattggag tgaaatggat caaagtttga 720  
 attaaggcct atggttaagg aacattgctt tgttgtactt ttgaacaaga gctcctcctg 780  
 atcactatta catatttttc tagaaaatct aaagttcaga agagaatgta tcaactgctga 840  
 cttttattcc aatatttggg tggagtaagt tttagggtag aattttgttc agtttggatt 900  
 taatcttttg aaaagtaa tcttgttcta ctggtttgac tataattctc tgttatcttt 960  
 acgaggtaaa actgcaagct gactagcatg ttctgtgaat ctgccattcc taaaaatttt 1020  
 ataacacttt gatacttttc actgataatg gatcgctcca ataaacatat attgtgaaaa 1080  
 tgcattccaca ataaatggaa ttccttctctg c 1111

<210> 397  
 <211> 1266  
 <212> DNA  
 <213> Homo sapiens

<400> 397  
 ttcccggtga gtggtttgat ctatatacac tgtgacgatg gacagaagaa aattgtgaaa 60  
 gttcaaattc gagaagattt aactcaagtg gaacttttaa ctcgtttgac ctccaaacca 120  
 tttggaattc tttccccagt atctgagcct tcagtttagc atttgggtcaa accaatgaca 180  
 aaaccgcctt ccacaaaagt tgaaataaga aacaagagta ttacttttcc tacaacagaa 240  
 cctgggtgaaa cttcagagag ctgtctagaa ctcgagaatc atggcaccac agacgtgaaa 300  
 tggcatctgt catcttttagc gccaccttat gtcaaggagg ttgatgaaag tggagatggt 360  
 ttttagagcta cctatgcagc attcagatgt tctcctattt ctggtctgct ggaaagccat 420  
 gggatccaaa aagtctccat cacatttttg cccagaggta ggggggatta tgcccagttt 480  
 tgggatgttg aatgtcacc ccttaaggag cctcacatga aacacacgtt gagattccaa 540  
 ctctctggac aaagcatcga agcagaaaat gagcctgaaa acgcatgcct ttcccaggat 600  
 tccctcatta aaatagatca tttagttaag cccgaagac aagctgtgtc agaggcttct 660  
 gctcgcatat ctgacaggca gottgatgtg actgctcgtg gaggtttatgc cccagaggat 720  
 gtgtacaggt tccggccgac tagtgtgggg gaatcacgga cacttaaagt caatctgcga 780  
 aataattctt ttattacaca ctactgaag tttttgagtc ccagagagcc attctatgtc 840  
 aaacattcca agtactcttt gagagcccag cattacatca acatgcccgt gcagttcaaa 900  
 ccgaagtccg caggcaaatt tgaagctttg ctgtgcatc aaacagatga aggcaagagt 960  
 attgctattc gactaattgg tgaagctctt ggaaaaaatt aactagaata catttttgtg 1020  
 taaagtaaat tacataagtt gtattttgtt aactttatct ttctacacta caattatgct 1080  
 tttgtatata tattttgtat gatggatata tataattgta gattttgttt ttacaagcta 1140  
 atactgaaga ctcgactgaa atattatgta tctagcccat agtattgtac ttaactttta 1200  
 cagggtgagaa gagagtctctg tgtttgcatt gattatgata ttctgaataa atatggaata 1260  
 tatttt 1266

<210> 398  
 <211> 1290  
 <212> DNA  
 <213> Homo sapiens

<400> 398  
 tttttttttt tttatagaaa acctagggtt atttgttaag ctattacaaa aacaaaacaa 60  
 ttaccatttg aagtactttg aggacttcat cccagactca cttgttctgt tacagaaact 120  
 aacctaaaag gctggaaatt aaaggatata acctaagagg ttataacagc agactggtaa 180

```

aacatggcga aaggagctct ctctttcccc cgcagtctac caagctcctg tgcattttca 240
ccacatagat ctgctagctt acaaatgatg cacacagtca aggttagaat tataggccta 300
ctcagagggt acccagacac agaaagtttt agggtaaata gtaaaactaca aataccctct 360
tggttaagtt aattcatcaa gttaataaag gtcataattat ctatcttctg ctggtgacaa 420
cttggtgtct cagtatagtc tgtctcaaga aagaactggt tcagggtggg ttttggaana 480
ggaaaaagac tttcattaac ttcactccag agtggaaagag gcaccaagtt ctctcctaca 540
cttaggagca gaatcttaaa cttgcataaa tcatttttcag tgatcaacat ctgcatcctc 600
aaactgtcca gcaactgttg gtgtggtatc cacctccatc ccactctcat aatctcttat 660
tgaatcttct gtcttgacct cagccatatt atactggctg ctcacagact gagaaagcat 720
tccttctaatt ctctccagtg tggcttggtc ttctgctgtt agatgggata atccttcttc 780
atagggtgtaa aatgtaggga tgtccccctg tccttggtca tgtgcttcca catcatattc 840
ttctccatcg tagtcatctg aatcctcatc ctcaggatct ggatgcaagg cctggcattc 900
gcacattgca gtgaacattg cctccaacgc tgattttatca ctaggcacia atctaaattc 960
agtaaatagg tcaacatcat catcactgtc ttctcttctt tcactagcaa cagggttctt 1020
tgattcttct tcaaatttgg cattcaccat aacatacaaa tgctctccta gacagtcat 1080
tcggctccctg gataatgcat gtaaaactaat ggtggggtat tccagtgaaga atcctaattc 1140
agagccatct aaccaagaca ggcggctctc agcagatgtaa agggtagcag tgcaggaggc 1200
cttcccggtc agcacagcct cagtgtctgg ctgctgcccgc agggagccct ccgctggccc 1260
aggcggcggg aaacttttga ggaagcgaaa 1290

```

&lt;210&gt; 399

&lt;211&gt; 1554

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 399

```

tttttttttt tttttttttt ttttcttttc actaatttta tttatattag gtagttttca 60
ctcagaatat caattcattt ttcaggttta gatatatgta tatgtagctg ttcgtagtca 120
ttaatcactt agaaacttta tttggtataa cttcacattt ttggtatata gaaattttat 180
tttcttaatg cagcacagta gacatacaat caatattatt ccctagaatg tgcaaatat 240
aaattattca cattaaaaaa ttaacagaaa gcctcatatg cagtaaatat ttaaaaatgt 300
atatctaact ttgattctgt ttctgactat acactactag ctttataaat ctgaatgaat 360
atgacattta cacatttgaa tgaagtacac ggatgggtcc attccagatg cttattacac 420
cgtatgaata atctgctctt cactttggtc attaagggtc catgtgctga ggcataatgt 480
ggatccgaaa gacacttcca ggaagtacat ttattacatt ggcactctaa gaatttctgt 540
tccttttatt ctcttttata gcgagggggc cttttctctt taaaagcaag aagaccttca 600
agtctgtctt ttgttggaat ggtctgagca taacaagctt cttctatggc taacctgtt 660
actaaatcga cctccatccc ttgattaatt gctaattttg ccactctcat tgcaacaggt 720
ccctgaggta aaaactctct cgccagggtc aaggccttcc tgtaggccgc gtctccctcc 780
tggttctgtt ccagaacgtg gctgatttaag cccactgctt tggcttcttt gccatcgagg 840
actcgcgagc agaatatgag ctccctggcc agggacattc caatggcgcg tggcaatcgc 900
tgtgtccccc ctccaccagg aataatcgcc aattttgttt caaccaggcc catttttgca 960
gaggaagctg ctactcgat atcacaggct aaagccagtt caagaccacc acctaaagcg 1020
agtcacatca ttgtgcaat tgttggtact ggaagattag caatatcggt aatcactgct 1080
ctgatttttg agacaaaagg accaacttca ctggaactca ttttggtctt ttcttaagg 1140
tcagcaccag cacagaatat ccctgggact tcaactctga ttattatggt ccgtactttc 1200
ttatcagatt tcaaagcatc cacagctttt gatagcattt ttataagatt tttactgagt 1260
gaatttttgc cataagctct gtttattcca agcaccacaa ttctcggtt ctctcctcc 1320
agggtgccga ccgcagctc gtctccgctc ttcatctcag agctgtagcc ctttttcggg 1380
gcgggacccc cggcgcgagg taccagccc tgggcccaga tcgcccggcc cgctcgccgg 1440
cctgccaacg agcggggcag cctcaacccc gggcagagcc acgcactgca agcggccacc 1500
aggcggcgcc cgccagcatg cagggatccc aaggcccccag gtgcccgcgc cacc 1554

```

&lt;210&gt; 400

&lt;211&gt; 2402

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 400

```

gtttcccgga ggaacagttc atttcaacag ccaggagaga agcctggatg ctcaagttgg 60
ggaatggcgg tcaatgtgta ttctacctcg ataaccag agactatgag cagacatgac 120
atcattgcat gggtaaatga catagtatct ttaaaactaca caaaagtggg acagctttgt 180
tcaggagcgg cctattgcca attcatggac atgtctctcc ctggctgcat tagtttgaag 240
aaagtaaaat ttcaagcaaa gctggaacat gaatatattc acaattttta acttctgcaa 300

```

```

gcatacattta agcgaatgaa cgttgataag gtaattccag tggagaagct agtgaaagga 360
cgttttccagg acaacctgga ttttattcaa tgggttaaga aattctatga tgctaactac 420
gatgggaagg agtatgatcc tgtagaggca cgacaagggc aagatgcaat tccctcctct 480
gaccttggtg aacagatctt caacctgcca aaaaagtctc accatgcaaa ctccccacca 540
gcaggtgcag ctaaatacaag tccagcagct aaaccaggat ccacaccttc tgcacctca 600
tcagccaaaa gggcttcttc cagtggctca gcatccaaat ccgataaaga tttagaaacg 660
caggtcatat agcttaatat acaggtacat tcattaaaaac ttgcccttga aggcgtggaa 720
aaggaaaggg atttctactt tgggaagtgt agagagatcg agctactctg ccaagaacac 780
gggcaggaaa atgatgacct cgtgcagaga ctaatggaca tctgtatgc ttcagaagaa 840
cacgagggcc acacagaaga gccggaagca gaggagcaag ccacgaaca gcagcccccg 900
cagcagggaag agtactgacc cccccggct gctcttgaca cttccattgt gtgtgggaac 960
gtttcttctg gagaattgga acatgtgtgg cccaagctc aacagaaacc agttgttccc 1020
aatctgccgt taccatcaac gcactgttgc atatgccagc cactgcgctt ggttcccatt 1080
ttctttgcca aggtgtatta gggacggcc ctctggccac ctaccggaga gatcgtaggg 1140
tcacatacat ccaacttcac cacttggtct cttgagattg gttctgctct tttcttcatt 1200
tctttccaga acaactcttt cccaccccaa caccactgcc accaccctc tttttatcct 1260
ggtgtgaaac aatggttaatt tgatatatgg tatttatatt ggcatttttc aaccagtggt 1320
cctagatagt cacacacatt tgtggtgctt tgatgtttgc aagtctaacc tctgaacata 1380
aatttgggtca aataattgga acaaaggga acagatactt gatatgaaag ccataatgac 1440
ggtgacttgt gtcgtggggg aaaacataag gtcattttct ccctctactc acaataactaa 1500
agggaaaaaa tggattcaaa gctaggattt cagggcccag cagtgttctt ccatcagcat 1560
gttagacaac tacacagtat gttgttagtt ttgaaagaca ttcactcaag gaaaacacca 1620
tctcaacttt gcccgctcac catgtccctt gcccccatgt agccatttc ccaggttatg 1680
ctcttttctt tctcagggtc ctctttgggt ggcagccact ccccgagatg ttgccatcag 1740
ttttctgcag tccaaagagg gtatgggttag gtacgggtct tctgcctca ttcctcttcc 1800
tctttgtgta ggtttcagcc aaaaactgt cattcactct aggggacccc tactaaaggg 1860
taacttcagg tgtgcagccc tgagctccaa ggctctgcac catgccacac acttgctgta 1920
aggctagaag tgaagacctt attaatagga gcataattgc gaggggagaat catggttctg 1980
cagtctggtg tagacactgg aataacagca cagaaaaatc tatgactccc aatatcttct 2040
agaataaaga attttccctc tttaacacaa gggccctcct tgtcattgac cttagctaaa 2100
ccatggcaat tcataaatag aggaacattt aatgaattaa aagcattcct tattttttaa 2160
ctaataattg tacattttct tagtctcttt ccaagtcttt gcctcttttt tttctttatt 2220
tttatttttt cctttgacag atggtatccc ttctggatc attcatttca ccttggtttc 2280
taacttttag tttactttca cttgttattt gacttagcag gtgcaacaaa aacaagaaac 2340
aaatgtgccc accccacttt ccgcttaact gaaaagctta aaataaattt ctgaattatg 2400
gg 2402

```

&lt;210&gt; 401

&lt;211&gt; 1802

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 401

```

ttccagaaaa ggatattttt tttattcaag taactgcaaa taggaaacca gagagggagc 60
cccaggctgg gacaaatcat ggctacccct ccccaacaga acagggggag gaggtggccc 120
ctacaccctt tatggtcgat tcgggcccc ttgctcactc tgctgcagca tcttaggggc 180
agggccccac cttccctggg actggggttag tgggtcacc agcctgccat gccccagccc 240
ctcttcccc caaagagtat cttgggggag gggatcgtgg gcagaacagg aggcaatgag 300
gatgaacatt tggcgctggg agcagcagca atgacggatg tcgaagaatg gaacattgaa 360
caaaaaacaa cacaactgtc cagaggtagt ttgtgaacag aggaaaaatg gaaccagaac 420
cttggggggc agggaggagc agggggggg ttgggagcgg gcagggtgag ctcttgttta 480
ttgggtgccc atctgaggag ggggaaatgg ctgagtggcg gaagcaaagt aggggttagg 540
gagcagcccc agcccacctc aggtggcggc cacagggtc ttgggcctca cctggacaat 600
aagtgactgc atctccatca ccacaatat tactcagatc ccaggcggag ggcaaggggg 660
ctgtggccac agtgaagagg gagtagggga ctcacccctc ctgccttctt gtagccgaag 720
ggggtgtgac aacctagtac ggggactagg gaagtgggg aaggatgaaa agtgagcccc 780
acgtggtgac aaagacagtt tggctggggg aatcctgggg gccagcacc cctccattg 840
gccacacctg ctgctgccag ggcagtggag tagggcgtgc caggatgaga tggggcttgg 900
ggccctttta aggccagggg aacctccca ggcccacta tgggaagcca gagggaacag 960
tgaaggagca gagagggcgc ccccaaacca aaagcccaga gagcaatgtc cccaccacca 1020
agggagtggg gacgcagcag gtgcagggtg cggctaagtg ggatgttagc cttgtccagg 1080
agggcatgtg tgtatgcgtg ggtgggcggg gggagctggg aactgaggcc aggggaaaac 1140
tgctccccac tcagcccatg ggagccctgc agcggctggg gtgctgtgta gtgtgggtgt 1200
gagggcacag gtggaagatg ggggtggcgg ccagaggcgg tgggtgatgt gggcctgggg 1260

```

```

aaggggcggg ggcggtggga ggcgagcaaa gctgtccagt cccagaagga agctgctcct 1320
ccagttagga gcaggcgga cgcatgggtc actgctcctc ctccgaggac tctgctgaga 1380
tgccctcctc ttcctccttc tccagttttt tgggtctgcc ccttggtttc ctctctggag 1440
ttgtggtggt ttcccggttc ttggcagcac ccttggtttt gcttcccttt ggtcggcccc 1500
gaggtctctt aggtgttggc acttcgctgg gctccttctg actccctacc agcgtgtgcc 1560
cgggactcac cggaggctgc ttgcgcggcc tgccccggcc ccgcttctca gtgcgctcct 1620
tttctgctt ggaggccaag ggctggctgg acttcgagct cgactcactc atcttccctt 1680
ctctaaggag caggtggaag agtgatggct gggatgcgcg agctcggccg ccggcctgcg 1740
gtgcgcgctc cgggttgccg ggagcggcgg tgctgggcgc tgaggaccgg cctggctccg 1800
cc 1802

```

&lt;210&gt; 402

&lt;211&gt; 1391

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 402

```

ggctcaacag atttctcttt ccacccatct attgcagggtg tagtggtctt gctgcttctc 60
cagggaggat ctgcctacaa actggtttgc gactttacca actggtccca ggaccggcag 120
gaaccaggaa aattcaccoc tgagaatatt gacccttcc tatgctctca tctcatctat 180
tcattcgcca gcatcgaaaa caacaagggt atcatcaagg acaagagtga agtgatgctc 240
taccagacca tcaacagtct caaaaccaag aatcccaaac tgaaaattct cttgtccatt 300
ggagggtacc tgtttggttc caaagggttc caccctatgg tggattcttc tacatcacgc 360
ttggaattca ttaactccat aatcctgttt ctgaggaacc ataactttga tggactggat 420
gtaagctgga tctaccaga tcagaaagaa aacactcatt tcaactgtct gattcatgag 480
ttagcagaag cctttcagaa ggacttcaca aaatccacca aggaaaggct tctcttgact 540
gcgggcgtat ctgcaggag gcaaatgatt gataacagct atcaagtga gaaactggca 600
aaagatctgg atttcatcaa cctcctgtcc tttgacttcc atgggtcttg ggaaaagccc 660
cttatcactg gccacaacag cctctgagc aagggtggc aggcagagg gccaaactcc 720
tactacaatg tgaatatgc tgtgggttac tggatacata agggaatgcc atcagagaag 780
gtggtcatgg gcatccccac atatgggcac tcttcacac tggcctctgc agaaaccacc 840
gtggggggccc ctgcctctgg ccttgagct gctggacca tcacagagtc ttcaggcttc 900
ctggcctatt atgagatctg ccagttcctg aaaggagcca agatcacgag gctccaggat 960
cagcaggttc cctacgcagt cagggggacc cgggtgggtg gctatgatga tgtgaagagt 1020
ttggggccca aggttcagtt cttaaagaat ttaaacctgg ggggtgcctt gatttggtct 1080
tttgacatgg ttgacttcac tggcaaatcc tgcaaccggg gcccttcccc tcttgctcaa 1140
gcagtcaaga gaagccttgg ctccctgtga aggattaact tacagagaag caggcaagat 1200
gcccttgctg cctggggcct gctctctccc aggaattctc atgtgggatt ccccttgcca 1260
ggccggcctt tggatctctc ttccaagcct ttcctgactt cctcttagat catagattgg 1320
acctggtttt gttttcctgc agctgatgcc ttnttgccct gaagtacaat aaaaaaatt 1380
cattttgctc c 1391

```

&lt;210&gt; 403

&lt;211&gt; 1451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 403

```

aagctccacc tcattctaaa ataggtctag aaaaagagag aaagcgaaaa atggatgtga 60
gcgagataac tcgttatacc gaggattgct ttagtgattc taattgtgta cccaataaat 120
caaaaatgca agaagtagac tttctagaac aaaatgaaga gctacaagca gtagactcac 180
agaaatatgc attatcaaaa gtgaagcctg aatcaactga tgaagactta gaatctgtgg 240
atgccttcca acatctaatt tataaccag ataagtgtgg agaagagagt tcacctgttc 300
atactagcac ttttctttca aataccttaa aaaagaaatg tgaagagagt gattctgagt 360
cacctgctac tttcagtacc gaagagccat cattctaccc ctgtacaaag tgcaatgtga 420
atthttaggga gaagaagcac ctccacaggc atatgatgta tcatttagat gggaatgtc 480
actttcgcca tcttaatgtc ccaaggccat atgctttagt agaattgtga cggacatttc 540
gagatcgcaa ttcacttcta aaacatatga ttattcacca ggagagaaga cagaagttga 600
tgagggaat tctgaattg aaagaacttc aggatgaagg aagaagtga cgattacagt 660
gtcctcagtg tgtgtttggt accaattgpc ctaaaacatt tgtgcaacat gctaaaaccc 720
atgaaaaaga taaaaggtac tactgctgtg aagagtgtaa cttcatggca gtgacagaaa 780
atgaattgga atgccatcga ggcattgcac atggggcagc ggtaaaatgc cctatggcca 840
cttctgatat tgcccagaga aaaacacaaa aagagacttt catgaaagac tctgtagtag 900
gatcatccaa aaaatcagct acctacatat gtaagatgtg tccttttact acttcagcca 960

```

```

aaagtgtttt aaaaaagcac acggagtact tgcattcatc atcatgtgtt gattcatttg 1020
gtagtctctt tggacttgat aaaagaaaaa atgacatcct tgaagaacct gtagatagt 1080
atagcactaa aacattaact aaacaacagt caaccacatt tccaaagaac tctgctttta 1140
aacaagatgt gaagcgaaca tttggatcaa cctcacaatc aagtagtttt tcaaaaattc 1200
ataagcggcc acacagaata cagaaagctc ggaaaagcat tgcccaatca ggtgtaaaa 1260
tgtgcaatca aaacagctct cctcataaga atgttacaat taaaagcagc gttgaccaa 1320
aacctaagta tttccatcaa gcagcaaaag aaaagtctaa tgccaaggca aatagccact 1380
atttgatatg acacaaatat gaaaactana ggtngaccaa aaaatcaggt gaatcatatc 1440
ctgtgcatct c                                     1451

```

&lt;210&gt; 404

&lt;211&gt; 1348

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 404

```

ggacggacgc ttcggccgta acgatgatcg gagacatcct gctgttcggg acgttgctga 60
tgaatgccgg ggcggtgctg aactttaagc tgaaaaagaa ggacacgcag ggctttgggg 120
aggagtccag ggagcccagc acaggtgaca acatccggga attcttgctg agcctcagat 180
actttcgaat cttcatcgcc ctgtggaaca tcttcatgat gttctgcatg attgtgctgt 240
tcggctcttg aatcccagcg atgaaaccag gaactcactt tcccgggatg ccgagtctcc 300
attcctccat tcctgatgac ttcaagaatg tttttgacca gaaaaccgac aaccttccca 360
gaaagtccaa gctcgtggtg ggtggaaaag tgttcgccga ggtgtgcatg gtttccagc 420
cacgtccctg ttttcaaaga tagtttctact ttggtctctg aattgaaatg ctgtctactg 480
aaagggtttc aggagcgttt atgtaagggg ctgtgatgaa attgcattcc ccatagataa 540
aagaaaaatc atttctatcc agagatctga gcagaaggat tggcttggtt gtttaacacg 600
gccgtatttt tggacattca gtgttacttg ctgagtctga cagcctctgg gcccgccag 660
gggccctggt aacaaactgc tttcacatcc caacagggtc tgcttggcca ctgagtgag 720
ctgcgattaa ccctaaaggc ttttaaggaa gggccacctg taacagagac accagccttc 780
ctgtatagac actaaattgt tagcaagagt gttgagctag ttcttggtga agtggtttcca 840
cagaagacat gtggagcagt tgtggggata ttaagggaaa ctttctctct ccttgacccc 900
tttgttaaat aaaatgactt tgggagccat tcattgtaca gttgcaggaa tgagagtgat 960
tttatgatgt ggtacattgg gaccatgttc taaaaccttg ggtttctgag tctgcttttt 1020
gagtaggtga ttttgaggtt gaaaaaccag gggccttcac ctaggaaata ccgcattttc 1080
cagaagcttc tttgaaaggg aatcctggtt ttgttgccaa aatgaaacgc ccgggggttg 1140
cgctgaatcc cacaactgtg tgatttgctt gttgagtttt ttgttgctct gtttttttgt 1200
ttgtttgttt ataccaataa gaatgagcct gaatgttggt ggtttttgaa atcctgactt 1260
ggaggtaaac ctggaggaag gaaaaaaagt aaatatgcag gcttttagga ctgagtagcc 1320
ttgaaaataa atctcatttc taaaaagg                                     1348

```

&lt;210&gt; 405

&lt;211&gt; 655

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 405

```

cacctcatct ggatgtatgg caccatcttc ttcattgctgt tctccaactt ctggtatcac 60
tcttatacca agggcaagcg gctgcccgtg gcacttcagc aaaatggagc tccaggtatt 120
gccaaggtca aggccaaactg agaagcatgg cctagatagg cgcccaccta agtgccctag 180
gactgcacct tagggcagtg tccgtcagtg ccctctcpac ctacacctgt gaccaaggct 240
tatgtggtca ggactgagca ggggactggc cctcccctcc ccacagctgc tctacaggga 300
ccacggcttt ggttctctac cacttcccc gggcagctcc agggatgtgg cctcattgct 360
gtctgccact ccagagctgg gggctaaaaa gggctgtaca gttatttccc cctccctgcc 420
ttaaaaacttg ggagaggagc actcagggtt ggccccacaa agggctctcg ggcttttttc 480
ctcacacaga agaggtcagc aataatgtca ctgtggacct agtctcactc ctccacccca 540
cacactgaag cagtagcttc tgggccaaag gtcagggttg gcgggggcct gggaatacag 600
cctgtggagg ctgcttactc aacttgtgtc ttaattaaaa gtgacagagg aaacc 655

```

&lt;210&gt; 406

&lt;211&gt; 1939

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 406



```

gatttggttca gataaaactg gaacactgac gaagaatgaa atgactgtta ctcacatatt 60
tacttcagat ggtctgcatg ctgagggttac tggagttggc tataatcaat ttgggggaagt 120
gatttggtgat ggtgatgttg ttcatggatt ctataaccca gctgttagca gaattgttga 180
ggcgggctgt gtgtgcaatg atgctgtaat tagaaacaat actctaattg ggaagccaac 240
agaagggggcc ttaattgtct ttgcaatgaa gatgggtctt gatggacttc aacaagacta 300
catcagaaaa gctgaatacc ctttttagctc tgagcaaaaag tggatggctg ttaagtgtgt 360
acaccgaaca cagcaggaca gaccagagat ttgttttatg aaagggtgctt acgaacaagt 420
aattaagtac tgtactacat accagagcaa agggcagacc ttgacactta ctgagcagca 480
gagagatgtg taccaacaag agaaggcacg catggggtca gcgggactca gatttcttgc 540
tttggtcttct ggtcctgaac tgggacagct gacatttctt ggcttgggtg gaatcattga 600
tccacctaga actggtgtga aagaagctgt tacaacactc attgcctcag gattatcaat 660
aaaaatgatt actggagatt cacaggagac tgcagttgca atcgccagtc gtctgggatt 720
gtattccaaa acttcccagt cagtctcagg agaagaaata gatgcaatgg atgttcagca 780
gctttcacia atagtaccaa aggttgcagt attttacaga gctagcccaa ggcacaagt 840
gaaaattatt aagtcgctac agaagaacgg ttcagttgta gccatgacag gagatggagt 900
aaatgtggtg gttgctctga aggctgcaga cattggagtt gcgatgggccc agactgggtac 960
agatgtttgc aaagaggcag cagacatgat cctagtggat gatgattttc aaaccataat 1020
gtctgcaatc gaagagggta aagggattta taataacatt aaaaatttgc ttagattcca 1080
gctgagcacg agtatagcag cattaacttt aatctcattg gctacattaa tgaactttcc 1140
taatcctctc aatgccatgc agattttgtg gatcaatatt attatggatg gacccccagc 1200
tcagagcctt ggagtagaac cagtggataa agatgtcatt cgtaaacctc ctgcgaactg 1260
gaaagacagc attttgacta aaaacttgat acttaaaata cttgtttcat caataatcat 1320
tgtttgtggg actttgtttg tcttctggcg ttagctacga gacaatgtga ttacacctcg 1380
agacacaaca atgaccttca catgctttgt gttttttgac atgttcaatg cactaagttc 1440
cagatccag accaagtctg tgtttgagat tggactctgc agtaatagaa tgttttgcta 1500
tgcagttctt ggatccatca tgggacaatt actagttatt tactttcttc cgcttcagaa 1560
ggtttttcag actgagagcc taagcacact ggatctgttg tttcttttgg gtctcacctc 1620
atcagtgtgc atagtggcag aaattataaa gaaggttgaa aggagcaggg aaaagatcca 1680
gaagcatggt agttcgacat catcatcttt tcttgaagtc tggctctggg agaggagtgg 1740
acagcagctg gttgagatgc atccccatct ggagacagga ctgccactga cagaagatgt 1800
gagctgtgtc taagtccagt cttgtgcccc gccgtgtctg cgccttcact ctttggaaact 1860
ctgcatacaa catcttagca ccatcttcct gcagctcttc cttacctaaa taaagaaaca 1920
gcccaggggc agtattttcc

```

&lt;210&gt; 407

&lt;211&gt; 1709

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 407

```

gtgtcgtgaa aactaccctt aaaagccaaa atgggaaagg aaaagactca tatcaacatt 60
gtcgtcattg gacacgtaga ttctgggcaag tccaccacta ctggccatct gatctataaa 120
tgcggtggca tcgacaaaag aaccattgaa aaatttgaga aggaggctgc tgagatggga 180
aagggtcctt tcaagtatgc ctgggtcttg gataaaactga aagctgagcg tgaacgtggg 240
atcaccattg atatctcctt gtggaaattt gagaccagca agtactatgt gactatcatt 300
gatgcccag gacacagaga ctttatcaaa aacatgatta caggacatc tcaggctgac 360
tgtgtgtgcc tgattgttgc tgctgtgtgt ggtgaatttg aagctggtat ctccaagaat 420
gggagagacc gagagcatgc ccttctggct tacacactgg gtgtgaaaca actaattgtc 480
ggtgttaaca aaatggattc actgagccac cctacagcca gaagagatat gaggaatttg 540
ttaagggaagt cagcacttac attaagaaaa ttggctacaa ccccgacaca gtagcatttg 600
tgccaatttc tggttggaat ggtgacaaca tgctggagcc aagtgtctaac atgccttggg 660
tcaagggatg gaaagtcacc cgtaaggatg gcaatgccag tgggaaccacg ctgcttgagg 720
ctctggactg catcctacca ccaactcgtc caactgacaa gcccttgccg ctgcctctcc 780
aggatgtcta caaaattggt ggtatttgta ctgttctctg tggccgagtg gagactgggtg 840
ttctcaaaac cggtatgggt gtcacctttg ctccagtcaa cgttacaacg gaagtaaaat 900
ctgtcgaaat gcaccatgaa gotttgagtg aagctcttcc tggggacaaat gtgggcttca 960
atgtcaagaa tgtgtctgtc aaggatgttc gtctgtggcaa cgttgctggg gacagcaaaa 1020
atgacccacc aatgggaagca gctggcttca ctgctcaagt gattatcctg aacctccag 1080
gccaaataag gcgcggctat gccctgtat tggattgcca cagggtcac attgcatgca 1140
agtttgctga gctgaaggaa aagattgatc gccgttcttg taaaaagctg gaagatggcc 1200
ctaaattctt gaagtctggt gatgtgcca ttgttgatat ggttctctgg aagccatgt 1260
gtgttgagag cttctcagac tatccacctt tgggtcgtct tgcgttctgt gatatgagac 1320
agacagttgc ggtgggtgtc atcaaagcag tggacaagaa ggctgctgga gctggcaagg 1380
tcaccaagtc tgcccagaaa gctcagaagg ctaaatgaat attatcccta atacctgcca 1440

```

```

ccccactctt aatcagtggt ggaagaacgg tctcagaact gtttgtttca attggccatt 1500
taagttagt agtaaaagac tgggtaatga taacaatgca tctgtaaaacc ttcagaaggga 1560
aaggagaatg ttttgtggac cacttttggt tctctttttg cgtgtggcag ttttaagtta 1620
ttagttttta aaatcagtac tttttaatgg aaacaacttg accaaaaatt tgtcacagaa 1680
ttttgagacc cattaataaa gttaaatgc 1709

```

&lt;210&gt; 408

&lt;211&gt; 1109

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 408

```

accaacagat cccataccag aagatgagaa aaaagaataa gtgttgccctt gttttgtgtg 60
ttctaataac tttttttaat gaaaaaatgt tttttgggtt taatgggtgtt acgtgggttg 120
tgtattaatt ttttttcttg tccatatac accaccaaag gcttttggac catttagcat 180
catgagccta atggctcagt cagtcacctt tcttaagtgt tgtgaagatg gctcttttct 240
ttggatcttg tttctagccc tcaactgctg aaagcctcag aatttagatt aattgagaaa 300
acacccacct ctttttagaga attatccttt gatgctgcag aatctactct tacaatgcct 360
tctacagct cactgggggtg cttaccaaag ccatagcttt aaaccttccc agtccccatc 420
agtagcttcc tgaaagtctc ctctcttggt tacttctgca aagggttagct tcttaaaaaa 480
gtgatcatgt atgagtatgt atttgttcac ttacctttt ttacttttaa tcaatgtcag 540
ataccaagag ttgtgttaag ctgagtgtag tgtgtaacta actacacttg gatcttactg 600
atccagaat agtccccata gttagatgag ttacttatga agtgggttatt aaagtgaaca 660
cagcacatat acattatcta tactgctttt tgttatgatt aatactgggt atgttctggg 720
aaatccatcc ttattgtata gaaaaaaat tactttttta ccagggtttc caaagacaga 780
atagatcaca aagctcaagg aatttaatat tcttgtaatg gactagataa ttcaaactga 840
ttagccatt ccagaagaaa aacagctggg aattaagtta atccccctga aattgtttta 900
caataatcag aacatccaaa cctcaaggct caggatccca tagaccagag cccacctttt 960
tgataaactt agtaaagtct tggagactag aagcaagata gtttgtgaca cataagcttc 1020
ccaaaaacta gaatagattt ttactgaata gtggtatatc tgatgggtata tgtttcttaa 1080
aggtccaat gtaataaaaa aaaaaatgg 1109

```

&lt;210&gt; 409

&lt;211&gt; 2428

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 409

```

aaaagtctct ctacaaatgc tttttcacac tgtgtcacag ctcccacctg cccttcaga 60
ctgcaaagcc accttgccag gaaccacaga caaaggccac tgggtcaggtg acgcttttta 120
attggctgggt gtctttggag aatatcaaga gtcacatgtg ggccagagca gaaagcagaa 180
gccagtgct cagggtgagg ccttggggga aacaacgggc tgcgcgggag atcagcgatg 240
gctgaagaat ccctgaggat ggttgatatt aaatggcttc atctgctag gaccttgaa 300
gagccgcaga cacatcttct cctggggaaa ttctctgggc cctccacac tgctgcatg 360
gctctcggtc tccaggtaaa catccagcag cacacacagc cgctgcagct ggttggtcaa 420
cagctgggtg ctgggccaag ggccacacag ctcttgtag cacacattga ctctgcctc 480
catggcccga atgttgtcat cgttgctgtt ggtttctccc cctttccagt tcaaacagag 540
ctggaaaaca ggtgggatgg aggagtagcc agggttcaac accacagcgg cctgcagttt 600
ggctgtgccc ctctcgatga gcgccatgta gtagagattg gtgtccccag ccagctccgc 660
atccacaatg tctttggtga agtgcagctc catgtaatcc tcatgggcaa ctgtcaccca 720
tttcaccagg cgagagacaa ccttggcagg gaagaggtag tggcaatcac tggtaactgg 780
cacaatgcca tgttctaggg atgcaaaactg tttgtggagg gccaggcggg actgcacct 840
ggtcttcaga agtttcatgg tggctccat gtggctggcg ctgagcgagt ggtcagcaat 900
cactgtttgc tgggctgct ctttggggaa gtggaggcca cccagcttct gcaccacaa 960
ataggggtga cctagctcaa gtacatagtc gctcaaagtc aggatgccaa ctttatcaaa 1020
ctgatactga ttggctggat tgggagttt ctttccatga tccccaggat acaagcaact 1080
caggactgag tcaggagaca gcaagtcacc tgcaactgat ggggtgatca gctccatggc 1140
agttgtcact ttgcttttta ctgcatgat gttgaggttc atgaggtagt agaaagtcag 1200
gtgaagcaca ctgtcatctt tgcacttcag gtcgagcatg acagacagtg ggtgcctctt 1260
cagcatctcc ttgcgtttgt cgtccaactg aacccccagt gtgggtctcc ggcgcttctg 1320
agtctgctcc tctcggcat ctgagtcact ctgctcatct tgggagtcct ctggaggttt 1380
gaacagagcc ttggcttcat ccacactgcc ttcgattgcc acagataacg tcttatcaca 1440
ggcctgccca tacgcagtgg cctgaacaaa gaggacatag aggggaggcg gcaggtgtct 1500
ggctgtctca tactgcttgt gagcctggtc gaatggcata aacaggtact cctgcaccgg 1560

```

```

aaggggaagcc tgcattgatgc tgttgaggcgg gggtctggagg ctgctcaggt actccttctt 1620
cacctcaatc tccttgagaa tcttctcctt gttagatagg cactctcggg acttctctgc 1680
cagccttttc cgctgctcca gctcccagtc cagacgtgcc agtggttgcg ggtgaggggc 1740
tcccatgggtg acttcggcct tgctgatata tgggtggagcc tccttataaa actcctctaa 1800
actgaccaga tcaatttctt catgctttga cttaaactcc aaacatttgg tgatctcctt 1860
ctgtaggtgc atcacctcat acaacagggt ctggagctgc agatgatagg catctacttt 1920
ctgcttagcc tcgtgggtct gatctcttcc tttcttcaac ctgatgtggg ctaatcgggt 1980
aagcttcttt agagtcctga aatgcacaca gctctggatc ctccgttctt ctatttctat 2040
tgccacatcc ttgccacccc tgctcttcag gtcttggatc tcagccatca gcctctgtag 2100
ctcctggcag gtgtacttgt ataactcata gtctctgcca gggctccgca gatccacctc 2160
ggcctcctca ctgtagtatt taccttctcg ctccgtgtca gatcgattcc gctttccttc 2220
agctggggct ccactgcctc ggatcacttt gggcttccgt tttttgctcg attctgatga 2280
catgggtgtt cctccacagg ggttgtgtgt ggttttaaca caggaggcat tccactgggg 2340
aaggtgatga agatgacctg ggactgtggc ttcagatgat gcataggtga tcttaataa 2400
tgctgaacac ctcacagctc caaggaaa 2428

```

&lt;210&gt; 410

&lt;211&gt; 2273

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 410

```

ttttggaatt ttatttataaa aaaaaaaaaa aacatcacaa ccatgaacat tgttacagtt 60
aagaggccct cttgggtctc cacaatgata ctgagcatgc tcacaagggg tccccattgt 120
taaagtctta aacaaccatt tttaaaagaa ggaagaaaaa aaaactccgc acactaccat 180
ttaacttggt ttaatgtttc ttcacaaatg gtgaaaaata cttaaagtaca gacaaggaa 240
aatcataatg ttgtggccaa cattataaat atggaattat aaatttataa cattttctgg 300
tttaaaaaat aaatctggta gtcaatgcag ctctgcgggg tctctgcac tcagtagggc 360
gatctctgcg ctctgcagg tgctgcctt tatccatttt tccaggctct ccacgtctc 420
ctctctctcc tcccatctgt tccatcaaag gtccaggggg cccccagggg ccacctcgtc 480
ttctccacc aaagccacct cggctccatgc cccggccacc acggaagcca cctctgtctc 540
caccacggcc acctctgaac attccaccgg gaccaccacg atccatgagg ccacctcttc 600
ctccccgcat gccaccaggg ccacctctgc cagcatcacc aactgggttg cactctgttc 660
tccaggcgaa gttctgggtt ccacaaccgg gattgggaca ctgcccagtc ccagctcggg 720
gctggacgtt tctctctcca gaggggttcc ctgggaacc cgggggtcct cttggaggga 780
agcctctctc atctctctca cggcctccca tgcgacccat ggggtcccca ggacctctg 840
ggcctcctgg acctccacgg agtggtgggt gcatgcctct gccctcacgg ggtggcagac 900
caccctcgcat actgttcatt ggaggcttct tccgagcaag ggagacttta agtttgcctc 960
cttgaataatc tttcccaaca aaccattcca cggcagcctt ggcagtggtt gggctctcat 1020
aggacactgt ggcctcgcct ttgggctttc ctgtttcctt gtccaggtag atgtggatca 1080
tgggttgccc agttctcttg ttcattctaa caacccaca ctgtttaaag aagtctgcca 1140
gatcatctag agtcacactg tcatttaatc ctgttacata aattgcactg ttgtcagagt 1200
cttcactctg atctacagg gggcctagat caagatctgg tcttcatcc atgggtccac 1260
caggcttatt gaagccacct cgtctctcag cgcctcttcc accgctcct cctccccgcc 1320
cacctctgct catgcctcca ccatcaaate cccctcttcc cctgcccggg ttatcagggc 1380
cactcatgct ccggttctct cctggtccgg aaaatcctcc agactcctgc ccataaacac 1440
ccatgctact ggggtgggtc tgcgggaatg aactctgtcg cccgtagctg ctgctctgtt 1500
ggctatattg acttgagctt tggctgtagg atccagtttg ggggtgggta ctagtgggag 1560
gctgctgccc atagctgctt tgttgacct agctactctg ctgtccatag ctgctcgggt 1620
gccataggt gttctgctga gactaaactg tctgatcata actagtgggc tgtgtagagg 1680
aatagctggt agggaggtag gatggagggt cagtactgg ctgcatgggg tagctcccag 1740
gtacctgggg ataactgtag ttactctgtc catatcctag gctgggctgg ttgtaacccc 1800
ctgtgctaga ttgaggttga ctagtctcag tgggctgtgt tccatcctgc ggtctttag 1860
gtgcagtggc tgcctgctgc tgcccatagg ctggataagg aggctgagtg ccataatgcag 1920
actgagctgc ataggaggcc tgggtgggtg tgactgtagc agtgggtgga tcataagcac 1980
cagtgcataa cccctggaca ggcctggctg atgcctgggg ggcagttgga gtagtataac 2040
cagtgggagg ctgtccataa gaagtgtcat aggcggctct cccatagggt gcagtgggtc 2100
gagcctgggt atagctgaca tcagtgggct gtccataggt tccatagctt tgttggccat 2160
atgcctgggt ggtctgtgca tatccttgag tgggctgggc ggtgtaagca ctgtagccct 2220
gctgcgctgc agcttggtc taggtactgt aatccgtgga cgcaccttag aaa 2273

```

&lt;210&gt; 411

&lt;211&gt; 1902

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 411

```

cagctctttc gggataacca cctgatacct gcagaaaccc ccagtcctgt tattttcagt 60
gattttccat ttatctttaa ttcgctatcc aaaattaaat tattgcaagc tgattcacat 120
ataaagatgc agatgtcaga aaagaaagca tacatgctta tgcatgaaac aattctgcaa 180
aaaaaggatg aatttcctcc atcaccaga tttatactta gagtcagacg aagtcgcctg 240
gttaaagatg ctctgcgtca attaagtcaa gctgaagcta ctgacttctg caaagtatta 300
gtgggtgaat ttattaatga aatttgcctt gagtctggag gggtttagttc agagtcttcc 360
cactgtatgt ttgaagagat gaccaagcca gaatatggaa tgttcagtga tcttgaaatg 420
ggttcctgca tgtggtttcc tgccaagcct aaacctgaga agaaaagata tttcctcttt 480
ggaatgctgt gtggactctc cttattcaat ttaaattgtg ctaaccttcc tttccactg 540
gctctgtata aaaaacttct ggaccaaag ccattcattgg aagatttaa agaactcagt 600
cctcggtcgg ggaagagttt gcaagaagtt ctagatgatg ctgctgatga cattggagat 660
gcgctctgca tacgcttttc tatacactgg gaccaaagt atgttgactt aattccaaat 720
gggatctcca tacctgtgga ccaaaccaac aagagagact atgtttctaa gtatattgat 780
tacattttca acgtctctgt aaaagcagtt tatgaggaat ttcagagagg attttataga 840
gtctgtgaga aggagatact tagacatttc taccctgaag aactaatgac agcaatcatt 900
ggaaatactg attatgactg gaaacagttt gaacagaatt caaagtatga gcaaggatac 960
caaaaatcac atcctactat acagttgttt tggagggtt tccacaaact aaccttggat 1020
gaaaagaaaa aattcctctt tttccttaca ggacgtgata ggctgcatgc aagaggcata 1080
cagaaaaatg aatatgtatt tcgctgtcct gaaactttca gtgaaagaga tcaccaaca 1140
tcaataactt gtcataatat tctctccctc ctaagtatt ctacaatgga aagaatggag 1200
gaagcacttc aagtagccat caacaacaac agaggatttg tctcaccat gctcacacag 1260
tcataatcac ctctgagaga ctgagggtg gctttctcac acttggatcc tctgttctt 1320
ccttacacct aaataatata agagattaat gaatagtgg tagaagttag tgaggagag 1380
attgggggaa tggggagatg atgatgatgg tcaaagggtg caaaatctca cacaagactg 1440
aggcaggaga ataggggtaca gagataggga ctaaggatg acttggacac actccctggc 1500
actgaagagt ctgaacactg gcctgtgatt ggtccattcc aggacctca tttgcataag 1560
gtatcaaacc acatcagcct ctgattggcc atgggccaga cctgcactct ggccaatgat 1620
tggttcattc caggacattc atttgcataa ggagtcaaac cacaccagtc ttggattggc 1680
tgtgagccaa ttcacctcag tctctaattg gctgtgagtc agtctttcat ttacataggg 1740
tgtaaccatc aagaaacctc tacagggtac ttaagcccca gaagattttg ctaccagggc 1800
tcttgagcca ctgtctctag cccactccca cctgtggaa tgtactttca cttttgctgc 1860
ttcactgcct tgtgtccaa taaatccact ccttcaccac cc 1902

```

&lt;210&gt; 412

&lt;211&gt; 1834

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 412

```

aatctttcaa agcctcagtt ttatgacct gtggagccag tggactttga aggacttctg 60
atgacacacc tgaacagcct ggatgtgcag cttgccagg agctcgggga cttcactgat 120
gacgacttgg acgtggtggt cagcacaag gaatgtagga ctttgcagcc ctctttgccg 180
gaggaagggg ttgaactgga cctcatgtc agggactgtg ttcagaccta catccgtgag 240
tggctaactg tgaaccggaa aaaccaagga agtccagaaa tctgtggctt taaaaagact 300
ggatctcgaa aagattttca caagacgctt ccgaacaga cgtttgagtc ggaaaccttg 360
gagtgcagtg aaccgctgc tcaggcagc cccgccact taaacgtgct gtgcgacgtg 420
tctgggaaag gcccgtcac tgctgtgac tttgacctcc gcagcctgca gcctgacaag 480
cggctagaaa acctcctgca gcaagttagt gccgaggact ttgagaagca gaacgaggag 540
gcccgaggga ccaataggca ggccgagctc tttgcccttt acccatcagt ggacgaggag 600
gatgctgtgg aaatacgtcc agtaccagaa tgtcccaagg aacacctggg caacagaata 660
ttggtcaagt tgctgacctt gaagtctgag attgaaattg agccctgtt tgccagcatt 720
gccctctacg atgttaaaga aaggaaaaag atctcagaaa attttcactg tgacctgaac 780
tctgaccagt tcaaaggatt tctgcgagct cacacgcctt cagtggccgc atcaagtacg 840
gcgagactcg cagtcttctc agtcacctac ccgtcctcag acatctacct ggtagtcaag 900
attgaaaaag tctgcagca gggagagatt ggagactgtg cagagcccta cacggttatc 960
aaagaaagtg atggtggaaa gagtaaagaa aagattgaaa aactaaaact ccaagctgaa 1020
tccttctgcc agcgtttggg gaaataccgg atgccctttg cctggggcacc cataagctta 1080
tcaagcttct tcaatgtctc cacccttgag agggaggtaa ctgatgtgga ctctgtgggt 1140
gggagaagct cagtgggtga acggaggaca ttggcccaat ctagaaggct ttctgaagaa 1200
gccctctcct tggaggaaaa tggggttgga tccaacttca aaacctccac tctgacggtt 1260
agcagctttt tcaagcagga aggagatcgc cttagcgatg aagacttatt caagttttta 1320

```

gctgactaca	aaagatcatc	atccttacag	agacgagtca	agtcaattcc	aggcttgcta	1380
agactggaga	tttctacagc	tccagagatc	atcaattgct	gtctgactcc	tgaaatgctg	1440
cccgtgaaac	cctttctcga	aaaccggaca	cgcgccaca	aagagatttt	ggaatttcca	1500
acacgagaag	tatatgtccc	tcacactgtg	tacaggtaa	aaacacaggc	tcgggctggg	1560
cgtggtggct	tacaccataa	tcccataact	ttgggaggcc	gaggcaggag	gattgcttga	1620
gctcaggagt	ttgagaccag	ccttggcaac	atggcaaaac	cgtgtctcta	caacatatac	1680
aaaatttagc	tgggcatggg	gggtcatgct	tgtaatccca	gcaacttggc	aggctgaggc	1740
aggagaatcg	cttgaaccca	ggaggcagag	gttgcagtga	gccaaagattg	caactactga	1800
ctccagcctg	ggagacagaa	ccagactctg	tctc			1834

&lt;210&gt; 413

&lt;211&gt; 1564

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 413

ctgtaaataa	attagtaact	ataaataaat	gaatctgttt	ccaacaaagt	gctgggatta	60
caggcgtgag	ccaccacacc	cggcccgcaa	ttgctaactt	tcttaggaaa	cctcacattg	120
tcccaatagc	cccactcagt	attgtgacgg	gccctgtggg	agtgtgctg	ggcctgggtg	180
tgactggag	gctccttggtg	aggatagtg	tcaggccac	agcccatatt	ggcttttagt	240
gctgccactg	cctcaggaaa	aatgggaacc	atgtctcttt	tggaaaggtt	gtctctaaga	300
ctcaagatct	tgtgggtatt	tggtttttta	ctagaatttt	cttttgaaat	aggctgcagc	360
agttgtggta	gaaatttctg	ggttagtggg	ctctcttcta	caaccagagc	tacagatttg	420
aagaatcttt	tcagcaata	tgggaaggta	agtgccagag	cttttctgga	gaagataact	480
tgaaccagc	gttgtgtggc	ctttacatgg	aggtcctctc	ccctcagtga	gttctttgag	540
agataccaag	gagcttacac	ttgctaattg	ctggggaggg	tctgcccgtc	cacaggtaga	600
ggtgagagtg	gtgtggaagc	ttccagagcc	cacatcacca	ctgtattttc	ctcccttctc	660
tgcgagcttg	cccccttccc	tgtgatggct	cgtggatcca	tttctgtgtc	ctcaggacgt	720
cgcactcagg	ctgggctgcc	aggggtggct	gggtgggtgc	tggtcagcat	gtctgggaga	780
cagcagtgtt	cttagaacag	tggtcgtgat	gctggaactc	agaactcaga	acagggacct	840
tggagtctga	tgataggggt	cctcacacag	gggtgtcttg	gtccattgac	tgaacctcac	900
ctcagcagct	gggggctctc	aaagtgtgtg	cctcagttca	ccactggggg	cagttctagt	960
ggcctcttgt	ctgcagcacc	tgcctttcct	gagcccgatg	aggtggggct	ggtggcacca	1020
gccccctacc	tgcatgtccc	agcgagccg	cctggccctc	ctccctgtgc	tttctcactc	1080
ccttctctcc	tggtgtttcc	cagacttgcc	tcccaaacag	cctcctgcat	tcaggggctc	1140
tcgtctctct	caagatcggt	ttcggggact	accaaaggaa	ggagtccaat	cctttgtgtt	1200
acacagtgag	ggttcaacac	attgcaatat	agaaaaccaa	gtgttttccc	tgatactgac	1260
ttcgaagaac	ttaaaagagg	ataaaacagg	ctgggtgtgg	tgctcaccct	tgtaattcca	1320
gcactttggg	aggccgaggt	gggtggatca	cgaggtcagg	agtttgagac	cagcttggcc	1380
agtatggtga	agcctgtctc	tgctaaaagt	acagaaatta	gccgggcgtg	gtggcgcatg	1440
cctgtaatcc	caggtacttg	ggacgctaag	gcaggataac	aacttgaaac	caggaggttg	1500
aggttgcagt	gacccgagac	cgtgccactg	cactccagcc	tgggacagag	caagactcca	1560
tctt						1564

&lt;210&gt; 414

&lt;211&gt; 1191

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 414

tttttttttt	tcatacaaac	acagtatcaa	aaagtaaaag	gaacacacta	aatgcacaag	60
ctgggtggcaa	gtaagtccac	agcctattgt	gataggtcca	tccagcatca	atcagatttc	120
ttctcatctg	ttatctcaag	gttatttaca	gatgtgttga	ctaacaagag	tctctcatgg	180
gaggatgggc	aggcttcaat	cattgggttc	gggatctgtc	tgcgccatgt	aggcatccaa	240
ctcagcatcc	aggtgtcctt	ttgttttcga	catatatgca	tccaattggg	tgtccagctg	300
ctccttggtc	aatacagggc	gagcaagggc	acctctccct	cgtccacggc	ctcggcctcg	360
gcctocaaag	ccccctcttc	cccgacctat	catacccega	cctctaccac	cgattccgcc	420
acgacccata	gctccacgcc	ctaggccccc	tctcccagga	cctccacgac	ctcgaacacc	480
acctcttctt	aagcccatto	ggggagctac	ggctcgtcca	cctcggagca	ggttttgacc	540
tcggagtgc	atcccgcgcc	taagtagggg	tctgggtggc	cgtcccccac	gtagtctctc	600
tctgggcaag	cctctctgga	ttatgggtag	gcctcgtcct	ccgattgtct	ccctggccag	660
ggccccctatg	ggtcggccta	accgtgcctg	gatgttactc	ttaccagggc	gctgctttaa	720
gctctgctta	agtttttaatg	ctgctgggac	agagggtcta	ttctccatct	gctgggcccag	780
tcttctgttt	ctggcactgg	ctagctgctg	ttgttgcctg	atcgaagccc	gaatattcac	840

```

tggcgctcggc tgtttgttct tcagcatatt agtaaagcgc tcatttagag acatcttggg 900
gggtgcttttt agcacaactt tcggcgctga ctgtgcagcc atcttcgaat cccgagaatc 960
gaaggaaaca gacgccagt ctcctcccgg ggctgccacc acggctccgg caggcggggc 1020
ggggaccggc cgaacctgag ttgacggtgg aggggctcgg gttagctaga tgggcgggtg 1080
gtagatgctg taagcggtag tatgcgagct cagttcgttg ttgctggttg gctgtctagt 1140
cggccgatcc gtctgctcac ccggcctgcc ctttccctgcc tttcgtctgc a 1191

```

&lt;210&gt; 415

&lt;211&gt; 1532

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 415

```

gccagggtctc tggggcccac ctgaaccctg ccgtgacett tgccatgtgc ttcctggctc 60
gtgagccctg gatcaagctg cccatctaca ccctggcaca gacgctggga gccttcttgg 120
gtgctggaat agtttttggg ctgtattatg atgcaatctg gcactttgcc gacaaccagc 180
tttttgtttc gggcccctaat ggcacagccg gcactcttgc tacctacccc tctggacact 240
tggatatgat caatggcttc tttgaccagt tcataggcac agcctccctt atcgtgtgtg 300
tgctggccat tgttgacccc tacaacaacc ccgtcccccg aggcctggag gccttcaccg 360
tgggcctggg ggtcctggtc attggcacct ccattgggctt caactccggc tatgccgtca 420
acctgccccg ggactttggc ccccgccctt ttacagccct tgccggctgg ggctctgcag 480
tcttcacgac cggccagcat tgggtggtgg tgcccatcgt gtcccccact ctgggctcca 540
ttcggggtgt cttcgtgtac cagctgatga tcggctgcca cctggagcag ccccaccct 600
ccaagggatg agagaatgtg aagctggccc atgtgaagca caaggagcag atctgagtgg 660
gcagggggcca tctcccact ccgctgccct ggcttgagc atccactgac tgtccaaggg 720
ccactcccaa gaagccccct tcacgatcca ccttttcagg ctaaggagct ccttatctac 780
cctcacccca cgagacagcc cttcaggatt tccactggac cttgcccata tagcacctta 840
ggccactgcc cctaagctgg ggtggaaccg gaatttgggt caatacatcc ttttgtctcc 900
caagggaaga gaatgggcag caggtatgtg tgtgtgtgca tgtgtgtgca tgtgtgtgca 960
tgtgtgtgca ggggtgtgtg tgtggggggg gttccagat attcagggca agggaccagt 1020
cggaaaggat tctggctatt gggggagccc agagacaggg gaaggcagcc tgtccatctg 1080
tgcataagga gaggaagt ttccaggtgtg tatgtttcag gggcttcaca tggaggagct 1140
gcagatagat atgtgtttct gtgtatgtgt atgtctgcct ttttttctaa gtgggggctt 1200
ctacaggctt ttgggaagta ggggtgatgt gggtagggct gggaggaggg ggccacagct 1260
taggtttgga gctctggatg tacatacata agtaggagca gtgggacgtg tttctgtcat 1320
aatgcaggca tgaagggtgg agtgaagtca ggtcataagt ttcattgttt cttttgtttt 1380
gttttgtttt taatgtatgt agcagatggt acagtcttag ggatccggga tgggagacct 1440
cactttagaa agggctgtca ctcctttaat cctctactca acaatgtact cttttacttt 1500
tatattaaaa aaaataaaat aaatatgtgc ct 1532

```

&lt;210&gt; 416

&lt;211&gt; 1044

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 416

```

ggagaagtgg atgagaaaga atgggttcat taagagcttg tatgagaaa actttttacg 60
tctcttcctg agtctgtatg tagtactttc aggtaatcaa agctgtgagg acttaccagt 120
ttcttatcca aactattggc taggggtggt accactgtaa tacaactgct taggacactt 180
gaactacagt tgatatgta tttaagctac tcagaaagac ttttctgacg gaagatttct 240
ctattttctca ttctcaactt tagctcctct gagtgttccct ccaaactctgt cttttggagt 300
agacctagaa atcatctgtt actaagggtg actatgcatg tggaaaccatt gatttaagag 360
ttgagtactc ttaagtattc taaatatttg gtaattctgt ctcccactgt aaaacgaaac 420
aaagtacaca gaaactctat ccaagaaaat gtggaaaact tactgttgcc ataactctgt 480
accagaataa agctcttggg atctctgcaa taattaacac acgtttaagc acaattcttc 540
ttatacaaa gttacaaggta tgtgaacaaa gtatatttta aaattgtagc tcaactgtgtt 600
tttttttaat atcatgattt attcctttca gaagaatacg aacaaatgag aaaatgaatt 660
acattctttt aagttttgta ctggcaatgg tagcatgttt ctttctgcag agacaattag 720
aagagcagaa aaactgggag ggaggggaaa tgcagggtatt tcattttatt atggctcatg 780
aattcagaat tttttgttg gaaattgaag tcagggtcaa ttaaactatt atttataaga 840
aaattgtcag cctgggaaac atgggtgagc catgtatcta cagaaatttt aaaagttagc 900
tgagcgtgat ggtgtgtctc tgtgtgtcaca gctgcttggg aggttgaggg gggagagatt 960
cttgagccca ggaggttgag gctgcagtga gctgtgttca tgccccccc ctctagcctg 1020
ggtgacagag tgagaccctg tttc 1044

```

<210> 417  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<400> 417  
 cacataggat gaataatatc agttctaccg tacaacccta acataacccat tcttaattta 60  
 actatattata ttatcctaac tactaccgca ttctactac tcaacttaaa ctccagcacc 120  
 acgaccctac tactatctcg caccctgaaac aagctaaccat gactaacacc cttaattcca 180  
 tccaccctcc tctccctagg aggcctgccc ccgctaaccg gctttttgcc caaatgggcc 240  
 attatcgaag aattcacaaa aaacaatagc ctcacatcc ccaccatcat agccaccatc 300  
 accctcctta acctctactt ctacctacgc ctaatctact cctacctatc tcccctttta 360  
 tactaataat ct 372

<210> 418  
 <211> 2094  
 <212> DNA  
 <213> Homo sapiens

<400> 418  
 catttttctt tgagagaaga acagtggcaa gaagactggg cattttatact ctctcttgct 60  
 agtcagcctg gagcaagctt ggagcagacg cacatttttg tactggcaca tattcttaga 120  
 cgaccaatta tagtttatgg agtaaaatat tacaagagtt tccggggaga aacttttagga 180  
 tatactcggg ttcaagggtg ttatctgcct ttgttggtggg aacagagttt ttgttgga 240  
 agtccgattg ctctgggtta tacgaggggc cacttctctg ctttggttgc catggaaaat 300  
 gatggctatg gcaaccgagg tgctgggtgct aatctcaata ccgatgatga tgtcaccatc 360  
 acatttttgc ctctgggtga cagtgaagg aagctactcc atgtgcactt cctttctgct 420  
 caggagctag gtaatgagga acagcaagaa aaactgctca gggagtggct ggactgctgt 480  
 gtgacggagg ggggagttct ggttgccatg cagaagagtt ctggcgggcg aaatcacc 540  
 ctgggtcactc agatggtaga aaaatggcct gaccgctacc gacagatccg gccgtgtaca 600  
 tccctgtctg atggagagga agatgaggat gatgaagatg aatgaaaaaa aaaatcaaac 660  
 agcagaagac caaggcatca gatctgtaat gaccctaaag ttagtggtgt gctccaagca 720  
 gagtgcacat catggaatga accaaatctg gcaggatctg ctgggggaag tgttttctg 780  
 gaccacacac accttatgga gataatgcct ctgctgcgtg aggagacaga gaacttttagt 840  
 tggactacag tttgtaaaaa aaactaattt tattaagaca gaactttttt tccctccaaa 900  
 ttgtaaatct gtctataaat gtaacgcagtg tgggttggtg agacattgtt taataggaaa 960  
 agttgtacca gcatcttcat attattgaga aaattttttc cagcatgggc acttagaaaa 1020  
 agcacatggc aaatggctct ttgttccctt cagatattat ttcagtagaa cctggcattc 1080  
 tcccttcacc ttaaaagatc catctaagtc tcagatctgg aaacgttttg taccgattat 1140  
 ccacagcaaa acaaaaataa gcttttattt tattaacaat ttcgttctc ttgtgcccc 1200  
 tcaaatcttt taggaacaaa ctgcaagaaa agctaagaat gtttttagagt gaactaaata 1260  
 cagacattgc ttacttggtt tgaagagggg tttgggtttg gttattgtgt cttttaagtt 1320  
 ttctgatatg ccccttttca atatttagat atttatttgt tgggaagaat accttaaaat 1380  
 gagggttctt attccagatt ctgggcagtg gtctgtgagt agtttttttc ctggatgaaa 1440  
 agggagcaag cccacttgct actaaatgaa ttgtgtgaaa tgtgctcact tggactccat 1500  
 caacaatgtg ctgctcccag attgccatgc cagagggtct tcggattctt ccatcacctc 1560  
 tgctctaagc aaatcttggt agaagggtcat gcctttgctt aggcagattg ggaataccaa 1620  
 ttcactacag aataaagatt ttaaaaatgc aataaggtgg caaatgcatt gtatgaagaa 1680  
 tttctcagtg tttagtctga gaatttttgc atgttggtta attgtggcca ttctttaatt 1740  
 taaagttaaa actataatct taggtagaac aactttttta taagaagtat tatttgacca 1800  
 cttcaggtat acattcaata ctgggtaaaa atttcagacc tatctcagga acacagaaat 1860  
 atttggtgtc ctgataagca ctttctagac tattgatgtg gccaggaatt tggaaagacg 1920  
 acacacgcac gcacacacac acacacacac acacacacag ttttttctt cctgtgtgat 1980  
 aaaaaggctg tgaaaacctt aaagtatttg cttgcttctt gttttgttta gttgataatg 2040  
 aatgtgttac aacctcaaat ttgctgccag aataactaaa atagaaaaat cccc 2094

<210> 419  
 <211> 1308  
 <212> DNA  
 <213> Homo sapiens

<400> 419  
 gaacgagtct ccagcaccat gtctgggttg tctggccac cagcccgcg cggccctttt 60

```

ccgttagcgt tgcctgtttt gttcctgctc ggccccagat tggtecttgc catctccttc 120
catctgcccc ttaactctcg caagtgcctc cgtgaggaga ttcacaagga cctgctagt 180
actggcgctg acgagatctc cgaccagtct gggggcgctg gcggcctgcg cagccacctc 240
aagatcacag attctgctgg ccatattctc tactccaaag aggatgcaac caaggggaaa 300
tttgccctta ccaactgaaga ttatgacatg tttgaagtgt gttttgagag caaggggaaa 360
gggcggtata ctgaccaact cgtgatccta gacatgaagc atggagtggg ggcgaaaaat 420
tacgaagaga ttgcaaaagt tgagaagctc aaaccattag aggtagagct gcgacgccta 480
gaagaccttt cagaatctat tgttaatgat tttgcctaca tgaagaagag agaagaggag 540
atgcgtgata ccaacgagtc aacaaacact cgggtcctat acttcagcat cttttcaatg 600
ttctgtctca ttggactagc tacctggcag gtcttctacc tgcgacgctt cttcaaggcc 660
aagaaattga ttgagtaatg aatgaggcat attctcctcc caccttgtag ctcagccagc 720
agaacatcgc tgggacgtgc ctggcctaag gcacccatcc aacagcacca tcaaggcacg 780
ttggagcttt cttgccagaa ctgatctctt ttgggtgtgg aggacatggg gtaccaccta 840
caccacaaca gtcaatgagg gacttctttt taatttggtg ggattttgac tggttttgca 900
acaataggtc tattattaga gtcacctatg acaaaaaata ggggttacct agataatgcc 960
aaagtcagca tttgtcctgg gttcccttgt gtgatctgtt tggactatgt tttcttttct 1020
tctccactt gctcagcagc ttgggcttcc attctagtct ttttaccag atttttgtgt 1080
gaccatgttg acttcatttg gattgccctc tttcaatttc cttgtgaaaa cacccttaac 1140
tttctcttta ccttagctg aaatgtttac atagcttctg gtgatctctt ttcattgatt 1200
tatatctctt aaaatggtga tggatgtgac acctcataaa agtgagcttt gaactgtaga 1260
taactcttaa agaaaatgtc attttagaca attaaaaatat ttgtgccc 1308

```

&lt;210&gt; 420

&lt;211&gt; 1792

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 420

```

ggcagcagcc ggacgagcag cggaggcggt cgggagcgat ggtgaagatg gcggcgggcg 60
gcggcgaggg cggcggtggc cgctactacg gcggcgagcag tgaggcgggc cggggccccta 120
agcgggtcaa gactgacaac gccggcgacc agcacggagg cggcgggcgt ggcggtggag 180
gagccggggc ggcgggcggc ggcgggcggt gggagaacta cgatgacccg caaaaaaccc 240
ctgcctcccc agttgtccac atcagggggc tgattgacgg tgtgtgggaa gcagaccttg 300
tggaggcctt gcaggagttt ggacccatca gctatgtggt ggtaatgcct aaaaagagac 360
aagcactggt ggagttgaag atgtgttggg ggctttgcaa cgcagtgaac tacgcagccg 420
acaaccaaat atacattgct ggtcaccag cttttgtcaa ctactctacc agccagaaga 480
tctcccgccc tggggactcg gatgactccc ggagcgtgaa cagtgtgctt ctctttacca 540
tctgaacccc catttattcg atcaccacgg atgttcttta cactatctgt aatccttgtg 600
gccctgtcca gagaattgtc attttcagga agaattggag tcaggcgatg gtggaatttg 660
actcagttca aagtgccag cgggccaagg cctctctcaa tggggctgat atctattctg 720
gctgttgca tctgaagatc gaatacgaag agcctacacg cttgaatgtg ttcaagaatg 780
atcaggatac ttgggactac acaaacccca atctcagtgg acaaggtagc cctggcagca 840
acccaacaa acgccagagg cagccccctc tccgggaga tcaccccgca gaatatggag 900
ggccccacgg tgggtaccac agccattacc atgatgaggg ctacggggcc ccccccctc 960
actacgaagg gagaaggatg ggtccaccag tgggggggtc ccgtcggggc ccaagtgcct 1020
acggccccag tatggcacc ccacccccct cccaccacc cgagtatggc cctcacgccg 1080
acagccctgt gctcatggtc tatggcttgg atcaatctaa gatgaactgt gaccgagtct 1140
tcaatgtctt ctgcttatat ggcaatgtgg agaagggtgaa attcatgaaa agcaagccgg 1200
gggcccgcct ggtggagatg gctgatggct acgctgtaga cggggccatt acccacctca 1260
acaacaactt catgtttggg cagaagctga atgtctgtgt ctccaagcag ccagccatca 1320
tgccctggta gtcatacggg ttggaagacg ggtcttgtag ttacaaagac ttcagtgaat 1380
cccggaacaa tgggttctcc accccagagc aggcagccaa gaaccgcac cagcacccca 1440
gcaacgtgct gcacttcttc aacgccccgc tggagggtgac cgaggagaac ttctttgaga 1500
tctgccatga gctgggagtg aagcgcccat cttctgtgaa agtattctca ggcaaaagt 1560
agcgagctc ctctggactg ctggagtggg aatccaagag cgatgccctg gagactctgg 1620
gcttcttgaa ccattaccag atgaaaaacc caaatggtcc atacccttac actctgaagt 1680
tgtgtttctc cactgctcag cagcctcct aattagggtc ctaggaagag tcccatctga 1740
gcagggaagc atttctcttt cctttatgcc attttttgtt ttgtttattt gc 1792

```

&lt;210&gt; 421

&lt;211&gt; 1219

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 421

```

agcgcctgc atctgtatcc agcgccaggt cccgccagtc ccagctgcgc gcgccccca 60
gtcccgacc cgttcggccc aggctaagtt agccctcacc atgccggtca aaggaggcac 120
caagtgcac aaatacctgc tgttcggatt taacttcac tcttggttg cgggattgc 180
tgtccttgcc attggactat ggctccgatt cgactctcag accaagagca tcttcgagca 240
agaaactaat aataataatt ccagcttcta cacaggagtc tatattctga tcggagccgg 300
cgccctcatg atgctggtgg gcttcctggg ctgctgcggg gctgtgcagg agtcccagtg 360
catgctggga ctgttcttcg gcttcctctt ggtgatattc gccattgaaa tagctgcggc 420
catctgggga tattcccaca aggatgaggt gattaaggaa gtccaggagt tttacaagga 480
cacctacaac aagctgaaaa ccaaggatga gcccagcgg gaaacgctga aagccatcca 540
ctatgcgttg aactgctgtg gtttggtgg gggcgtggaa cagtttatct cagacatctg 600
ccccagaag gacgtactcg aaaccttcac cgtgaagtc tgtcctgatg ccatcaaaga 660
ggctctcgac aataaattcc acatcatcgg cgcagtgggc atcggcattg cgtggtcatg 720
atatttgga tgatcttcag tatgatcttg tgctgtgcta tccgcaggaa ccgcgagatg 780
gtctagagtc agcttacatc cctgagcagg aaagtttacc catgaagatt ggtgggattt 840
tttgtttggt tgttttggtt tgtttgtgt ttgtgtgtt ttttttgcc actaatttta 900
gtattcatto tgcattgcta gataaaagct gaagttactt tatgtttgtc ttttaagtct 960
tcattcaata ttgacatttg tagttgagcg gggggtttgg tttgctttgg tttatatttt 1020
ttcagttggt tgtttttgct tgttatatta agcagaaatc ctgcaatgaa aggtactata 1080
tttgctagac tctagacaag atattgtaca taaaagaatt tttttgtctt taaatagata 1140
caaagtgtct tcaactttaa tcaagttgta acttatattg aagacaattt gatacataat 1200
aaaaaattat gacaatgtc 1219

```

&lt;210&gt; 422

&lt;211&gt; 2441

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 422

```

cttgaatata attttgtttt tactcttccc tccccacttg aatacagtg ttagacttaa 60
atggtttata atgtaattct tacgcagttt aactatgtag atagattcct attgcaccat 120
aatttaatac tgagagattt tcttcgggg atttctgcat ctggtctctg tttacatccc 180
caaacgcagc ctgcttagaa acagtcctgg tcttgctgtt ttggtagcca ctgactgctg 240
atgtctcttg gccagcagtt tggggaggtc tccactacca cagccgcctt gatctcctg 300
agcacagggc tctccaccag gactcgggct gggcatgcgc ccctggcctt agaactttcc 360
agagaacatt cccattggct tcgcagctca ccaggctgtg gttggaacct gagaggtaca 420
ttatgctcca tttccttcac tcatgattac gaccagctgc cccatcgccc tcatttagac 480
tttatctgca tttgctgttg ggtctctct tcatctgtc cgctgtgcct gccgaaacca 540
ctggtctttg gtaagaaac tcctttacct tctccacctg ctctctagaa cagccccctt 600
gccttcctgt ggatggagag ctagcctgcc cctgatgata ctctgtcct tctggcttcc 660
tcaggaagca gcggcaccca catagggagg ctgcggaagg ggcacaatct gtgtgcttcc 720
cactggtccc gagagagagt ggcctggccc ttctcgttag tctctctacc cgagtccttc 780
tacctcttcc tgtccctttt gctttattgc ctggcctcgt ggacttcac acatgctttt 840
agcatttgag aacctggcca ggatggaaat gtcctattaa atgttcctta tacataaaat 900
gatctgagga aaatccaaa ttatttctta acatcttacg tactgggtat aaaagagggt 960
cgctcttcag atatacagag cacacactta ctgtattgaa aatatgatta cattcagcct 1020
aggcaaacca tcatttttagg cttacatgac ataaatgtat tttgtttaa tcttaagaca 1080
tttctgtcca caggcatggt gatataagaa aaaaaaaaaa aaaaaaaaaa aagcggccgc 1140
tttctaagag gaggagaagc aggagctgtc ggggaagatca gaagccagtc atggatgacc 1200
agcgcgacct tatctccaac aatgagcaac tgcccagctt gggccggcgc cctggggccc 1260
cggagagcaa gtgcagccgc ggagccctgt acacaggctt ttccatctg gtgactctgc 1320
tcctcgctgg ccaggccacc accgcctact tctgtacca gcagcagggc cggctggaca 1380
aactgacagt cacctcccag aacctgcagc tggagaacct gcgcatgaag ctcccaagc 1440
ctccaagcc tgtgagcaag atgcgcattg ccaccccgct gctgatgcag gcgctgcca 1500
tgaggagcct gcccagggg cccatgcaga atgccacca gtatggcaac atgacagag 1560
accatgtgat gcacctgctt cagaatgctg accccctgaa ggtgtacctg ccaactgaag 1620
ggagcttccc ggagaacctg agacacctta agaaccat ggagaccata gactggaagg 1680
tctttgagag ctggatgcac cattggctcc tgtttgaaat gagcaggcac tcttgaggc 1740
aaaaagccac tgacgtcca ccgaaagagt cactggaact ggaggaccg tctctgaggc 1800
tggtgtgac caagcaggat ctgggcccag tcccctgtg agagcagcag aggcggtctt 1860
caacatcctg ccagcccccac acagtacag ctttcttct ccttcagcc cccagccctt 1920
ccccatctc ccacctgta cctcatccca tgagacctg gtgctgggt ctttctgac 1980
ccttgacaa gacaaaccaa gtcggaacag cagataacaa tgcagcaagg cctgctgccc 2040
caatctccat ctgtcaacag gggcgtgagg tcccaggaag tggccaaaag ctagacagat 2100

```

```

ccccgttctt gacatcacag cagcctccaa cacaaggctc caagacctag gctcatggac 2160
gagatgggaa ggcacaggga gaagggataa ccctaccccc agaccccagg ctggacatgc 2220
tgactgtcct ctcccccca gcccttggcc ttggcttttc tagcctatct acctgcaggc 2280
tgagccactc tcttcccttt cccagcatc actccccaag gaagagccaa tgttttccac 2340
ccataatcct ttctgcccac ccctagttcc ctctgctcag ccaagcttgt tatcagcttt 2400
cagggccatg gttcacatta gaataaaagg tagtaattag t 2441

```

&lt;210&gt; 423

&lt;211&gt; 1510

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 423

```

tttctcttat ttttaattat tgtgatagaa atttactctt gtgtaaattg ctgtatacct 60
gtgtcactga tgaggaaatt ctaattatct tgaatagttt taaaaatggg aatgtttctg 120
ggagaaaagga attccccaaa agagaaaaaa taaattgctc ttttggcagt tggattagtg 180
gtgaaagagt gttataaccc aaaaaattca taaagggtacc agctattgtc agcatttggg 240
agtaaagaga atgtcttata aacctattga tatgatgaag tgccattaat ttagtaataa 300
tataaaatct aggtctcttat gtattctata atttatgaat atagagaaag ttcacaatat 360
gctgcagctg tttttcattg ttcaaataat tgctattttt gagaattaga catttaataa 420
aaatgccagg tgttccttgt cctcattctt ccataattgt ctatatatg tttagcaaaa 480
taattgagtt aaatatgagc ttttatgctt aagcgatggc tgtgttttcg ctcttaataa 540
aattgcacca taaaatttga ttttttagtg caaaattata aaaaggggtt gggcttgttt 600
cctcaacctg aacaacttct taccttcaag atggatgatt caaaggaggaa taatagggaa 660
tttcttagta tgaagtact tggttgtttt cttaggaaaa caaaaggtag aatttaacag 720
catggggcct gatttaataa gaaaataaat gtacagatat aatcaactct gctgtcatgg 780
ggatttcaag ttataaatgc aataagtaac atcccttgac ttattctatg tacttttgcc 840
ctaattactt acctattagt ctgaaacttg agttttttaa ttaactctct atgtaaaaga 900
ggaataaatt gaatgcataa ttaaaatata tgtgttcaat tatcacacct ttttgccag 960
actataagct tcatttttcc tgttatatcc actaaattaa tttatgcttg tttttccatt 1020
aaaacaagtt actttggctg ggtgcagtga ctcccgctg taatcctagc actttgggag 1080
gctgaggtgg gcagatcatg aggtcaggag ttcgagacca gcctgtccaa catggtgaaa 1140
acctgtctct actaaaaata caaaaattag cggggcatgg tggccggcac ctgtagtccc 1200
agttgcttgg gaggtctgag caggagaatt gcttgaaacc agaaggcaga ggttgctgtg 1260
aaccgagatc gcgtcactgc actcctgcct gggcgaaaaga gtgaaactct gtctcaaaaa 1320
taaataaata aataaataaa taaataaata aataacaaaa attagccagg catggtggcg 1380
tgcacctgta atcccagcta ctcaggaggc tgaggcagga gaactgctta aacctggaag 1440
gcagaggttg cagtgagctg agattgcacc attgcactcc agcctgggtg acagagcaag 1500
actccatctc 1510

```

&lt;210&gt; 424

&lt;211&gt; 2228

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 424

```

tcagaagaat agatgaagtt gccattcacc aagaaggcag agccgccgac ttgggcacaa 60
ttaaagaagc tgacacagtt agctaaaaaa ggccttgaga acacaaaggt gacacaaact 120
ccagagagta tgcgtcttgc agctttgatg attgtatcaa tgggtggtaag tctcccatg 180
cctgtaggag cagctgcagc taattatacc tactgggcct gtgtgccttt cctgccctta 240
attcggggcag tcgcatggat ggataatcct attgaagtat atgttaataa tagtgtatgg 300
gtacctggcc ccacagatga tcaactgcct gccaaacctg aggaagaagg aatgacgata 360
aatattttcta ctgggtatcg ttatcctcct atttgtctag ggagaacacc aggatgttta 420
atgcctacaa tccaaaattg gttggtagaa gtacttactt actgtaccac cagtagattc 480
acttatcaca tggtaagcgg aatgtcactc agggcacagg taaattattt acaggacttt 540
tcttatcaaa gatcattaaa atgtaggcct aaagggaac cttgccccac ggaaattccc 600
aagggtatcaa aagacacaga agtttttagt taggaagaat gtgtggccaa tagtgtgtg 660
atattacaaa atgatgaatt tggaaactatt atagattggg cacctcaagg tcaattctac 720
cacaattgca caggacaaac tcagtcatgt cccagtgcac aagtgaagtc aactgttgat 780
agtgaactaa cagaaagttt agacaaacat aagcacaaaa aattacagtc tttctacct 840
tgggaatggg gagaaaaagg aatctctact ccaagaccaa aaataataag tccgtgttct 900
ggtcctgaac atccagaatt atggaggcct actgtggcct cataccgcat tagaatttga 960
tctggaaatc aagctataga aacaggagat cataagccat tttatactat cgacctaaat 1020
tcaagtctaa cggtttcttt acaaagttgt ataaagcgcc cttatatgct agttgttaga 1080

```

```

aatatagttta ttaaacccaga ctcccaaaact atataacctg tgaaaaattgc agattgtttta 1140
cttgcatctga ttcaacttttc aattggcgagc accgtattct gctagtgaga gcaagggaag 1200
gcgtgtggat ccctgtgtcc atggaccgac agtgggaggc ctgcgccatcc atccatattt 1260
tgactgagtc tgcaggtgta cccaacagct ccaaagagac agcgaccatc gagaacgggc 1320
catgatgacg atggcggttt tgtccaaaag aaaaggggga aatgggaaaa gagagatcag 1380
actgtttaccc gtgtctatgc agaaataagt agacataaga gactccgttt tgttctgtac 1440
caagaaaatt cttctgcctt gagatgctgt taatctgtaa ccctagcccc aaccctgtgc 1500
tcacagagac atgtgctgtg ttgactcaag gtttaattgga tttaccaaag ggctatgcag 1560
gatgtacttt gttaaaaaaa agtgcttgaa ggcagtatgc ttgttaaaag tcatcaccat 1620
tctctaactc caagtaccca ggacacaata cactgtggaa ggccacaggg acctctgcct 1680
gggaaagcca ggtattgccc aagattttct cccatgtgat agcctgagat atggcctcat 1740
gggaagggta agacctgact gtccccagc cgcacatccc ccagcccgac acccgaaaag 1800
ggtctgtgct gaggaggatt agtaaaagag gaaggcctct ttgcagttca gataagagga 1860
agtcatctgt ctectgtctg tccctgggca atagaatgtc tcagtgtaaa acccaattgt 1920
atgtttctatt tactgagata ggagaaaacc accttagggc tggaggagag acatgctagt 1980
ggtaatactg ctctttaatg caccgagatg tttgtacacg tgcacatcaa ggcacagcac 2040
cttttcttaa ccttntatag gacacagaga ctttntttta catgttttcc cgctgacctt 2100
ccccccacta ttaccctata gtctgtccac atccccctcn ccgagatggg agagataatg 2160
atcaataaat nntnagggaa ctacagagacn cgtaagcacc ggtcccttgg gccctctttt 2220
ctttctcc 2228

```

&lt;210&gt; 425

&lt;211&gt; 1716

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 425

```

tgcagatttc aacagtaact ctggaaaact gtgaaaaatg ttatttataa atatatatgt 60
atatgtctact gcacagtttc aaagatgtga ttcataaata atgttggtg cactgattaa 120
ttttataaca attactgcac ttccaagttag atgcgaacac gcagtgactc atactcaata 180
ttaggcacta gtaatatcct tcaggcgtag tacagtttta tgttagctgt attgtacata 240
tatattttta aatgtatgca ttatatacaa ctgtgtatat tatgtatggg gtgtcagaaa 300
tgtacacatc actgtttatat aatacacaca tcattgttgt acatatgagg ataagtttta 360
gtgcagaaag tctcattgca ttgcattcca tgtgttcaat ctatacacaa tttgtcaact 420
cttcagatta tttttccagt acattcctca ttagattgtg ggtttcaagt ttccatttgc 480
aatttgaatg tttccagaaa tctctgtctt aaccaaacct ctctctccag gcacgattct 540
gcacatgagt ctgactgtg tagagtagta tcatcaaata tgccagattt tgatcaggaa 600
tatacttgga ctactctctt tcaaaggcaa ttgaacatcg tgataaagga tagcatctat 660
tcagggtcatg gaaggatatg gtcagttgaa cttgtgattg aactttggag gcaaatgtac 720
gtcttcaaat aaaagacat ggtaataaaa attatttgct taaatttgag agtctctgga 780
aggatataca tcaaaactgtg agcagtgggt gtctcaggca gaagggacaa ccagggactt 840
acactttcta ctttctacat ttctgcactg tttgagtttt tacaatgagt agatattact 900
tttctaatta gaaaacacaa gaaaggtatt tcaacttgaa acaaaactaa acaggccagg 960
catggtggct catgcacttt gggaggccga ggccaaagga tgcgttgagc ccaggagttt 1020
gagaccagcc tgggcaacat agtgagaccc ccactctctac aaaaaaata aagaaaaaat 1080
tagccgggtg tggtyggcac tgcctatctt cccagctgct tgggaggctg aggcaggagg 1140
attgcttgag cccaggagtt tgaggctgca gggagccatg atcgcgccac cgcattccag 1200
cttgggtctac agagccagac ccggtctcaa aaccaacca accaacaaca acagcagtaa 1260
caacaaaact aagtaaaagg aacaagttat gaatgacttt cacaagcaac aattggagga 1320
tggttactaa ccaaaatcac ccatgccaaa cccacagaa actgctgtac caactgtctc 1380
cacactgct ccacagatga aacaagacag tcataagaac tacacgctct gacctgtcc 1440
cacaacggta agtttcaaga agttttctgt ggaaatgtgg gccatcagag tgctgataaa 1500
acactgtctg cccacctgtc aaatggggct tcacagggaa gctcatcaca tagatgttac 1560
aacaagtct gcaactttca aggtgggcag gaccagagaa gctctccagg tatgcaggat 1620
agacctccag ggccatccct ttatgtgttt gaatatattc tcaggattct tcaagagtag 1680
gtagaacaaa gcctcagtc tccaaaaaaa tgactc 1716

```

&lt;210&gt; 426

&lt;211&gt; 980

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 426

```

tttttgttgg gctgtccttg tgtattttca cccagcctg tagtctcct cacttcaacc 60

```

```

ccagggattt ttggggagca agggtagcca atggcagagg gggttggggc tgggactctg 120
gaggctcctc cccttccttc tcttccttcc gcctcccccg tgccccagc tgctcttgtc 180
actgtctctg atgggtattt gcctggcttt gttgcttctc tatctgtatt tagctgcagt 240
gatccttttag ctgggttggt cagaaaaaaa aaaaatgtgct ttaggtgccc tgtaatcctg 300
ggcatcaagg gaatccatcc tccccctttt tgatatgttc tccccgtact tccagattta 360
ttgttatggc tcccagtggt tattggcgat tcttgtgatg cagggcctca gtcagtgtcc 420
agccatgcat aagggagagg atagtgtgta cctgccctgc cctctgctat gaaggtctct 480
gccttgtgga tcatgggact ccccttgagg gatctgtgca aaggggggct gggcacaaaag 540
gagaatgtcc ttttgggag ggcaggaagc aaaggaactg gacagggatt ggtgggcttg 600
gggaacggaa gtttatcttg gatacccttg atgaagaggc tgggtctctt cacatgaaga 660
tcgaaaaggg accctgcttc caatttccct ctccatttcc tcgagctact ccagggctta 720
gaagaatgct cttggtctgt ggggtccagt ttgtctgtca tccatttaag tgttccact 780
ttcaagtgtc aatcctctcc ttggccctgc catagggcag agcatgtctg gcatagcagc 840
ctgactttta tgccctaata ttgagttgag gccttatctg cacaggagtg aaagagatgt 900
ctttatatct gactgtatat aaatgaagtt ttttgtttt ttttgtttt ctttttgggtg 960
caataaagtt tgttttggcg 980

```

&lt;210&gt; 427

&lt;211&gt; 1578

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 427

```

caccacgttc tggggcctcg tgggcacgc cgggccctgg ttogtgccga agggacccaa 60
ccgcggagtg atcatcacca tgctggctgc caccgccgtc tgctgttacc tcttctggct 120
catcgccatc ctggcgcagc tgaacccctt gttcggggccc cagctgaaga atgagaccat 180
ctggtacgtg cgttctctgt gggagtgaac cggccgcccc gaccaggtg cccagctctc 240
ggaatgactg tggtccact gtccctgaca accccttctg cggggacct cccccacaca 300
actatgtctg gtcaccagct cctctctgct ggcacccaga gaccggacc cgcaggcctg 360
cctggttctt ggaagtcttc ccagtcttcc cagccagccc gggccctggg gagccctggg 420
cacagcagcg ccgaggggga tgtcctgttc caataccgc actgctctgg agtttgcct 480
ctttcccaag gagatgctgc tggggagctg gtatgggtgg ggtctttccc ttacagacg 540
gggcagatgc caggactcag cccatcctga ggaggacacg tgtcctcatg gagagggtgc 600
tccggcccag gcgggggagt cgggtgccag tcagcagctc tgccaccatc ctgctgggaa 660
ctgggggggc ctctattggg ttataggcaa ggccctttct ctggcatgga attgttaatt 720
ttctgacacg tctagatgtg aaatttctga aaatgttgaa gcagagaaac attcacacac 780
aaaaagcaac atagtcatgt ggggtccagat ggctcagtc ctatagttg gcacccttg 840
ctgtgtctcc tcagagtatc ctgttccgcc tctgccacc tggacctccc tcagtggatg 900
tcttccctcc cccgacccca gcctgtcagt ccgagcacag tgcaagtttg gctctgactt 960
gggccttttg ctgcagtggg ggtggatttc agagcctctc atggcagcat ctaagtgaac 1020
agagctggga tgagagaggg gaaggggcaa tgtagtggtg gctatgggac gggccagacc 1080
tgcttctgag ccaggcccgc ctctgcccct ggctgggct ctgtgctagg gatggtgaag 1140
aatggggcgt gccagcctgg caggagtggg aagcaacacg caggggtccc ggacctctcc 1200
agccttgccc tcacgcttat ccgagctccc agtgtggtta gcacagagct caccacctt 1260
gcctggctcc cagctggggc ctgtcctcac tgggtgtcca ggggaagaaa cgacagctc 1320
acttctgtat ggactgtga tgtggcctgc catcctgttc agcgggcatt gtctttggag 1380
cagcaggaga ctaggatgcc tctcactcac atgccagttc ctggctggcc agctgctcag 1440
ggctcaggct ggggcctccc attgacatcc tccccctaca ctccctctct gagcctccgt 1500
cgccctcctt gttgggtaag ggtgttgagt gtgacttgtg ctgaaaacct ggttcatata 1560
taataaataa tggatgatg 1578

```

&lt;210&gt; 428

&lt;211&gt; 1257

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 428

```

ctctgccata gcagatttat cttcaactat gtttatcatc caaaagggtg taggatagat 60
gtttctatca atgagtgtta tgatggctcc tatgcaggaa atcctcagga tttcatcgc 120
caacctggat ttgcttttag tcgcaacgga ccagttaaga gaacacctat cacacatatt 180
cttgtgtgca ggccaaaacg aacaaaagca agcatgtctg aatttcttga atctgaagat 240
ggggaagtag aacagcaaag aacatatagt agtgccaca atcgtctgta ttccatagt 300
gatacctgtt tacctctccg tccacaagaa atggaagtag atagtgaaga tgaaaaggat 360
cctgaatggc taagagaaaa aaccattaca caaattgaag agttttctga tgttaatgaa 420

```

```

ggagagaaaag aagtgatgaa actctggaat ctccatgtca tgaagcatgg gtttattgct 480
gacaatcaaaa tgaatcatgc ctgtatgctg tttgtagaaa attatggaca gaaaataatt 540
aagaagaatt tatgtcgaaa cttcatgctt catctagtca gcatgcatga ctttaattctt 600
attagcataa tgtcaataga taaagctgtt accaagctcc gtgaaatgca gcaaaaatta 660
gaaaaggggg aatctgcttc ccctgcaaac gaagaaataa ctgaagaaca aaatgggaca 720
gcaaatggat ttagtgaaat taactcaaaa gagaaagctt tggaaacaga tagtgtctca 780
gggtttcaaa acagagcaaa aaacaaaaac tctgaaaagc tctaccccat gttatggaca 840
aacactgaaa ttacattttt gggaattcat cctctaagaa ttatgttttt gtttttaate 900
atatgttcca aacaggcact gtttagatgaa gtaaatgatt tcaacaagga tatttgtatc 960
agggttctac ttcacttcat tatggggcat tacatgtata tcaacttttat tgatgtcatt 1020
aaaacattct gtactttaag catgaaaagc aatatttcaa agtattttta aactcaacaa 1080
atgtcatcaa atatgttgaa ttgatctaga aattatttca tatataaatc agaatttttt 1140
tgcatttatg aagcgcgctg tttttctact ttgtaattgt gagacatttt cttggggagg 1200
gaaaattgga atggttcctt ttttttagaaa ttgaagtggg cttcatatgt caactac 1257

```

&lt;210&gt; 429

&lt;211&gt; 1151

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 429

```

tgactcactg ggtattagtc ctgacctgct tcttgaggac tttgtcaggt actgcttctc 60
cgagatggcc ccagtgtgtg cgggtggttg agggattttg gcacaggaaa ttgtgaaggc 120
cctgtctcag cgggaccttc ctcaacaaca cttcttcttc ttcatgggca tgaaggggaa 180
tgggatttgt ggagtgcctt ggccccaagt gaactcaaga tttggcagcc ccagagatgc 240
caactgcagc atgcccacct gtattccctg tcccttcctt tcatgaaggc atctccaggc 300
aaggaaaact gaagtcattg gcccgataca aaacatttcc tgcaacgaag gaggtggtgc 360
cgacgtgctg cttcccatca ccagcagctg ctcgacaagg ggcgcagggt ggctgtcctt 420
gttccagcac tgttcaggct gcctgtcatc ccgggcctgc cagctccctt gactgatgag 480
cacttccaag caccctctg ccttttctct gtcttatgct tgtccgggcc tcgccagccc 540
tctggggcat tgtgggagat gcctgccagg aatgagcaag ctctgttgct cgggagcctc 600
ttgtcacctt cttggactta tccccacct gataccttat agagaaaagt gtgaattcag 660
gtggagagta ggcccaggcc ccatgaggca ccagtgaag cacagctcca agttcagaca 720
gggtgccctta gagaggaaaa ccatgacagg caaatgcatt tccctctggag tttgagacct 780
tgacaaacaa cagggtggcat ctggtgtgct gttcttgagt tttcgtttag gattagtga 840
gttccagctg ggttttggga gaaaggagat gctaccaagt cttggatgtt agggcgagac 900
cctgcaagt gagtattaga gagcttgtct ttcaaggcag gttcctgggg cttcagggtc 960
aggagggagg agcctgccct tttaacagaa cccagtcac atgcggctca agtcactcag 1020
aggctgttgc atttcagggc tatgttggtc ctttgtttac ctctaaacc acagctgttt 1080
gtgtttcaca tatgttgta attttccttg gttcttttta aaggaatgct aataaagtta 1140
cttgctttag g 1151

```

&lt;210&gt; 430

&lt;211&gt; 1698

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 430

```

cggagctacc caggcggctg gtgtgcagca agctccgcgc cgaccccgga cgctgacgc 60
ctgacgcctg tccccggccc ggcatgagcc gctacctgct gccgctgtcg gcgctgggca 120
cggtagcagg cgccgccgtg ctgctcaagg actatgtcac cgggtgggct tgccccagca 180
aggccaccat ccctgggaag acggtcatcg tgacgggcgc caacacaggc atcggaagc 240
agaccgcctt ggaactggcc aggagaggag gcaacatcat cctggcctgc cgagacatgg 300
agaagtgtga ggcggcagca aaggacatcc gcggggagac cctcaatcac catgtcaacg 360
cccggcacct ggacttggtt tdcctcaagt ctatccgaga gtttgacgca aagatcattg 420
aaggagtaaa ctgagtcaca gagaagtgat gtgacttggc caggatcatg cagctggctg 480
gggtggagcc aggccttgaa cctgtctgtc ctgctccaga gctggtatcc atgacgggtg 540
tgcgtcaacc ccctccttct cacacagaga accagatggt gtctgtgtgt tacgcgctgg 600
acacctaatt cacgatcccc gccgaaaacc acttcgggag cattatgaat tccatttgtt 660
cctccacccc caaggatagg ttgggacctt gaaccccat ccctcagcat gtgacttcat 720
ttagagagga ggagcgagtg gacattctaa tcaacaacgc ggggtgtgat cgggtgcccc 780
actggaccac cgaggacggc ttcgagatgc agtttggcgt taaccacctg ggtcactttc 840
tcttgacaaa cttgctgctg gacaagctga aagcctcagc cccttcgcgg atcatcaacc 900
tctcgtccct ggcccatggt gctgggcaca tagactttga cgacttgaa tggcagacga 960

```

```

ggaagtataa caccaaagcc gctactgcag agcaagctcg ccatcgctct cttcaccaag 1020
gagttgagcc ggcggctgca aggtgatgg gaggccaaac ggtggatcca gaacagagtc 1080
agcaaaagta gagcatgtgg accacgctgc ccgcttctgg tgctgaagc agacatcact 1140
aatcgatcgt tcttctgagg attgtctgtt catcccaggt ggtctagtct gcctggatca 1200
gatgtccttc cctgctgctg ttgggcaggc agctcagcct tttggctcca gccagctctg 1260
gtgtgactgt caacgccctg caccgccggc tggccaggac agagctgggc agacacacgg 1320
gcatccatgg ctcacacctc tccagcacca cactcggggc catcttctgg ctgctggtca 1380
agagccccga gctggccgcc cagcccagca catacctggc cgtggcggag gaactggcgg 1440
atgtttccgg aaagtacttc gatggactca aacagaaggc cccggccccc gaggctgagg 1500
atgaggaggc ggcccgagg ctttgggctg aaagtgcggc cctgggtggc ttagaggctc 1560
cctctgtgag ggagcagccc ctcccagat aacctctgga gcagatttga aagccaggat 1620
ggcgccctca gaccgaggac agctgtccgc catgcccga gcttcctggc actacctgag 1680
ccgggagacc caggactg

```

&lt;210&gt; 431

&lt;211&gt; 571

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 431

```

cctggacgag gtcattggctg ccgctgccct tacaagcctg tccaccagcc ctctccttct 60
gggggccccca gttgcagcct tcagcccaga gcctggcctg gagccctgga aggaggccct 120
ggtgcccggcc ccaggcagct acagcagcag cagcaacagt ggagactggg gatgggacct 180
ggccagtgac cagtcctctc cgtccacccc gtcaccccca ctgccccccg aggcagccca 240
ctttctgttt ggggagccca ccttgagaaa aaggaaagagc cgggcccagg tcatgttcca 300
gtgtctgtgg aagagctgag ggaagggtgt gagcacggcg tcggcgatgc agagacacat 360
ccgcctgggtg cacctgggga ggcaggcaga gcctgatcag agtgatgggt aggaggactt 420
ctactacaca gagctggatg ttggtgtgga cacgctgacc gacgggctgt ccagcctgac 480
tccagtgtcc cccacgggcc tccatgccgc ctgccttccc cccgcccggg ctgccagaga 540
tgctggagcc cccagccctg cctagtcctt t

```

&lt;210&gt; 432

&lt;211&gt; 1269

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 432

```

gtgaaatttta agtcagtaat aattgactta gccctttct cctcagctat caatgtagg 60
tgagattttt aggtctataa attgtattgt taaaaaaaaa gggatagtaa tgatgtagtt 120
tttaacttcg tgatactatc catataaata tgaaaatttt cagaaacaag cttaatttat 180
atacatataa gaaaaagact gttcttatgc ttggccagaa atatacttct ttctgtcctg 240
tacttttatt aggttggtgt ttgccaaagt tcaggcattt acatcccacc ttcatatcta 300
aggctagcat ttttagtttg tttagagaat ttggattggg tgcgagcaag acatttttga 360
agtcatctct ttaaatagat gttccatgaa ggagggaata tctgaaagaa ggaatttcaa 420
agcaaccctaa gcagtgtttt gaaaattctc aagactgaag aataatgact gactagttag 480
caggaagcct gcagttgtat tgtggtattg ttccctccat tcatgcattt gagaacttta 540
gtacaaaaga agagaaagca tggggagggg aagaaagggt tttaacaaaa aagggggcac 600
tttttgtagt aaatattctt tgcccttctg tttaaatgaa atctaaagcc atattatatt 660
actttgaaag aaaatgtgta tcataataga aatgtcctaa actgacattt ttataaatga 720
aagttaattg ctggttggtg aaagagcagc atgatcatat gttcagtttc aaaacagaac 780
tttgattaaa aagaaatcta catgtgaaaa ccttttttct ctttttggtg cctgatcaat 840
atattttgtt agcttggttac tttgaaaaga agacttacct agggcagagt tcagaataat 900
ttgtaagcat gtgctataag ctttggaaca atcaatctct ctaggccagt ttttaaaatt 960
ttaaaacaaa ggggtgctctg tatggttttc caaggttcct tattttatac aattctataa 1020
acttaaggca ttatgtggat atgtccattg ctcttttact taaattttgt tgattggaca 1080
taaatgaatt aagctcttta taccggataa ccgtgtgaag ttggatgcag ctttcagtgc 1140
tgacttataa aggatttaga ggctgggtcc catggctcac acctgtaatc ccagcacttt 1200
gagaggagga tcacttgagc ccaggaattt gagaccagcc tgggcaacaa agtaaggctc 1260
tgtctctgt

```

&lt;210&gt; 433

&lt;211&gt; 1203

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 433

```

tttaaattgcc actaaatttt aaattcatac ctttccatga ttcaaaattc aaaagatccc 60
atgggagatg gttggaaaat ctccacttca tctccaagc cattcaagt tcttttccag 120
aagcaactgc tactgccttt cattcatatg ttcttctaaa gatagtctac atttggaat 180
gtatgttaaa agcacgtatt tttaaaattt ttttctaaa tagtaacaca ttgtatgtct 240
gctgtgtact ttgtattttt tatttatttt agtgtttctt atatagcaga tggaaatgaat 300
ttgaagtcc cagggctgag gatccatgcc ttctttgttt ctaagttatc tttcccatag 360
cttttcatta tctttcatat gatccagtat atgttaaata tgtcctacat atacatttag 420
acaaccacca tttgttaagt atttgctcta ggacagagtt tggatttgtt tatgtttgct 480
caaaaggaga cccatgggct ctccagggtg cactgagtca atctagtcct aaaaagcaat 540
cttattatta actctgtatg acagaatcat gtctggaact tttgttttct gctttctgtc 600
aagtataaac ttcactttga tgcgtgactt gcaaaatcac attttcttct tggaaattcc 660
ggcagtgtag cttgactgct agctaccctg tgccagaaaa gcctcattcg ttgtgcttga 720
acccttgaat gccaccagct gtcacacta cacagccctc ctaagaggct tctggagggt 780
ttcgagattc agatgccctg ggagatccca gagtttctt tccctcttgg ccatattctg 840
gtgtcaatga caaggagtac cttggccttg ccacatgtca aggctgaaga aacagtgtct 900
ccaacagagc tcttgtgtgt atctgtttgt acatgtgcat ttgtacagta attggtgtga 960
cagtgttctt tgtgtgaatt acaggcaaga attgtggctg agcaaggcac atagtctact 1020
cagtctattc ctaagtccca actcctcctt gtgggtgttg atttgtaagg cactttatcc 1080
cttttgtctc atgtttcatc gtaaatggca taggcagaga tgatacctaa ttctgcattt 1140
gattgtcact tttgtacct gcattaattt nttaaaatat tcttatttat tttgttactt 1200
ggc 1203

```

&lt;210&gt; 434

&lt;211&gt; 1207

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 434

```

ccagttaaaa aagaacaaaa aacaattttt ttaaaccctt gcaagagcaa agaaacaaac 60
tcaaactagc tcttcaatat aactgattta gactctttcc atgttacagg tatcttgctt 120
gactccaatt catgttacaa ttatcactgc aaacatcagc atcacttttt gtgggactct 180
cttattttatc atccctgtct ttaagaatac actgtgttcc gggttggtatt ctcgggcccc 240
acaactcata gtattccttc tgggtttaat tgcttgttga ttgccttgt tctaaatgcc 300
cctatcatgg tcttttccac cctaagtagc taaatatatt caacgtgtgc aaccattcct 360
cgattcactt tatttcctcg aaaaaatttt ttatgtcttc ttgcaaaaag aaatcttgta 420
gtatagtaga attaaaccat gctgcattta taaatatttg ctctagtgtt ttgatggctc 480
tcttaaaagc tgccattcag gccgggtttg gtggcgtgtg cctgtattcc cagttacttg 540
ggaggctgag gcaggaggat cccttgatcc cagagtccag ggctacaacg agctatgatc 600
aattgagcca atgcactcca gccttgaaaa ccctgtctct aaaaacaacag taacaacaaa 660
cagccattca gagtaaatag taggtacaaa ataaatact ccttattgta tacctagtat 720
aatacagaag ttaagaactt ggtttttcat atgttagtgt gtttaatatg tactctttag 780
taaacaggta ctggtagccc ttggttttta tatcattgac ttttcaata actggcacat 840
ggaatactat acgtgtcacc tctgaaatgc catttatata ctggattttg acttacgaac 900
atcatttgat gaatgccttt tttgggctgt ttgtgttgct gtcttgccaa gtaaccccca 960
cctgctacag aactgtgact ttgccacttt tggcaaaaat ttcaaaaatt atttgggaaa 1020
ttttattgct ttttacctta ttttaacaaa acaagtggaa aagggggaaa tgaaagcctc 1080
tggttatggg aaagtattat atcttggtat aaaattgaga caataatcat tagatgtgct 1140
gaaagtgatg aatctttatt ggaagtgtcg catgggttta agctgatgaa ttgtgaaaaa 1200
aattgtg 1207

```

&lt;210&gt; 435

&lt;211&gt; 659

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 435

```

cacacgcaga gcatgagcag cgcgtgtgcc totgcagtac cgcgttctgc tctcgaagg 60
ccacattcat cttccgcaag cgcggaagct cgcctcagc cgctttgttt tgggtccaaga 120
actcttcagt gaagatggga acatcgaagg tggagaagcc atcgcagtc ccacccttgt 180
gtccattcag gagagtgttc atgagccag agctcgagtc ttctttcttg atcttctct 240
cctggatctt ctccgtgcac atcttatagg cttcagactg ctggtacgcc cgcagctcct 300
tcagtactg ctgcttctct ctctcggcct catccaggta ccgtgcttt tccgttggt 360
gcagcttgct ccactcggcg ccagcatct tgggtatctc gggaaagggc agatccgggt 420

```

```

ggcgcggtgcg gatctgctcg gcgcgctcgt tcaggaagcg cacgtagccc gtgaccgggtg 480
ccttggggccc attcggcaga atcttcttcc gcttcttgcc cttggggccag ccgcgtttct 540
tcaccggctc ctccctcgtg gaccccttct cgcgcgcgcg tggaccctcg ccgcgtctct 600
gcttgacagt caccacgaag ccccatgct ggcccgagc cttgcgcgcc gccgcgcgcg 659

```

&lt;210&gt; 436

&lt;211&gt; 1070

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 436

```

caaaatgcct ctgattacag gcgtgacgcn cgcacctggc ccatgaaaga tttttattca 60
tcacaagtga agccaacaag taagtcatag tatgagtaat taattattat actggagtgt 120
gaatttgaag cctgtgcaag gaacacaccc atcagaaagt ttgtgaatga gccacaccat 180
ggcccagagt ctgtatcttc ctgcagcctc tgcttcctg cctgtcacc acctcaaagt 240
agctctcatg aaatgatcat ttgttattat tcttcacac tatttacctt ttacaaatgt 300
tattaagttc atgtctgaaa ttgctacaat agtgatgtca ttgacaccta tgggtgaaaa 360
ttatatttta tggcagatat ttttttaca gcttctgtaa gtttctttgg tctgtattt 420
gtcacatcat tatggacctg aagatgtgcc cactaatgaa atattttgtt acaatttgtt 480
gagttttgtg gggaaacttg tctgctcttg cagtttgttc aaatttggca tcaagaatgt 540
ttctggatat attccctcc catgtcaagg gtttttagta caaaaaaaaa aaaaaaaaaa 600
aaaaacccat gttctgggat taccacagaa agtgaaggta cagaaattag gaagtaaaca 660
caaatatagc acactaattg taacttgta catttgtaga gcattttatg ttctgagtgt 720
ttgagcaatc accactttca tcttccttt gagagaggaa gaaacaatgt tactctgctc 780
attttataaa taagaaaagg cagctgggcg cgggtctcac gcctgtaatc ccagcactgt 840
gggaggatca cctaaggcca ggagttcgag accagcctga ccagggtgga gaaacccctg 900
ctctcccaa aatacaaaat ttgccaaagca tgatgtcaca tgctgtggt cccagctgct 960
cgggaggctg aggcgggaga attgcttgag cctggagggt gcaggttgtc gtgagccagg 1020
atcgcgccat tgcactccag cctgggcaac aagaacaaaa ctctgtctct 1070

```

&lt;210&gt; 437

&lt;211&gt; 1573

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 437

```

tttttttttt ttcactcttc ttcacatag ctatactcta gtcatactgg tttttttct 60
tttttctttt tggagacagg gtctcactct ttcaccagg ctggagtgtg gtgggaggat 120
catggctcac tgcacatact gcttgtcttg atgtttcttg cacaccccaa gcttgtcttg 180
cttcaagatc ttacactaac taccctcttc tagggtgctc ctccaccaga ttttttgcatt 240
tattggctgc ttctgaacat tctggtctct tctcaaagt cacctcctca gagaggctgt 300
cctcgacctt tatttttaag agtatccct gctctcctgc ctctcagacc ctacttatca 360
caacctcctt tattttcttt attttactta ctgttatcta aaactacagt atttctttgt 420
ctgtttattt gtctgctttc tctaccaga atgtaagaga ctttgtctca tcaccgatt 480
tctcctggta tctagaacac tgcttggcat ttctgttggg gggttgaatg aataaatgaa 540
atgattaaaa accaaaacac actaaataaa tttataattc aagaaaaagc aacttgaat 600
tttacaaaaac taaaagaaat ctgaaagcgt gatatgaaat aaaatatctt caaagcaaga 660
caaattttaa tccacttgaa agctctaaat tagttgtaaa aatagtctct ccaaactagg 720
catttgagaa aaacttcata atacttaaat tcccaaatta aaagttttaa atgaaaatga 780
caatttactt ctaaatatca aagtgtctca atgttaact cagaaattta atgaggcaat 840
attacttctt tggtaaaact tgactcttaa aaagccact taagcatata caaagatgtc 900
aaaaaatcag ttattaatac tacagaaata cttttttaa taaatgcatt ttttaacta 960
acatgattta acaaaaggat ctctaacct ccaatgatct tgaaagatag gcactatatt 1020
cccctacaca tataatgaag atatacaggc cattcttccg tatgtgaata attaagacct 1080
gggttagaat ctttcttatt tctatcatat tttctgaaa tgcattgatc tctatgtggt 1140
tagttcttag taaactacag tagtaaacaa ctctagtgt tattgcaatg aggcacattt 1200
gtgtactcta tagcaagta ctggcaatcc aaatgacttg gtaccactta cactttcact 1260
tccaccaaga cataagaggg tcagagtcgg acataaagggt gttgagtctt tctgattaca 1320
atgccattgc caagtatata agcagttctg ttccagagata attttcacac tcaacaaata 1380
tattctggta ggtcttcaat aaattaagat tatttaacac aatatctaata ctatttggtt 1440
agaaatgaga ggggaatgaca agcacagaag cccagagaca cgagattgtt tagaggagca 1500
aacagcaagg agaccagtgt gactacagca gagtcagcag agccagcaga cctggagatg 1560
agaaccttag aaa 1573

```



<210> 438  
 <211> 1843  
 <212> DNA  
 <213> Homo sapiens

<400> 438  
 gtgtcattgc aagctttctc tgctgtcacc agtgaacat agtgccctgt taaattcccc 60  
 cactttaact tccttgtgat caacagtaac tggatgtttt tgagggtgctc aattggaata 120  
 aaaatatttc aatctatttg gagaccaag gcaaaatcag ttttcttacc tttggaatta 180  
 ttctgtacctt ttatggtaaa ttctagcttt gacatgtatt atgaggaacg taccaaaaac 240  
 cggtttgtaa caaatctgta gagaaggtct gaatctatcg tgtttgcctt ttcaggtgcc 300  
 atttctactg cctaatacag tgccatttgc cttgtgaaga cccataaaca ttcattgtgt 360  
 tgaatgtaag agagagactc tccttagtct tactgatctc agtaccaccac attcgattaa 420  
 gaatgatatg aaaaccagca gctaaggaac atcttattat ttagttgtag catattcata 480  
 acaagtgtcc ttcaaggata aacatatatt ctctatttgt atttagcaag taaaacttgt 540  
 gttgaccttt agtgcattat attcagcttt taacagtatt atgtatgtac tggaaagcaa 600  
 agaaatctta gagtcttggg cattgtttat ttgtgcacaa ctagaagga gcaatgaagt 660  
 ttatttcagt tgtatttttc cctaagcaca atctgcaata gtttatgtat gacagagata 720  
 attcaaaaag gaaaactata tataaaagt gtatataaag tttgtctctg aaatatttct 780  
 ttgaagtttt taaaaattga ctcatgttta aaaacaaaca cacactattc agagcattgg 840  
 acttttttaa cttgttttca tctgttatca tgactttttt atttctggtg tagagtccac 900  
 attatttagt ttgtgttact tttaaatttc aaagtccaat tctgaagaat agcgtttgtg 960  
 atttcgggaa accatgcagt ggttttaatc ccaggaaaaa aactatcaac aaaagtctgt 1020  
 ttgattctca ttatgtaact ttgtagacca tcctttctag atgggtccac cacagtgaat 1080  
 ttgtaacttt gaagtcagga tagaatatca ttagattatc tgtgagatag cattactatg 1140  
 ttgggaccag cagagtttgg gttggtaaaa ataagtgttg ctctattact gggttacaga 1200  
 catttcagca tttttaggtt ggttttaaat cactaaaaat atttattcgg atttgaagga 1260  
 ttttaagtgt aaaaaatcaat ccatttcttg cccttcaata attgtccatg cctgcctttt 1320  
 gttgtttaca tgctcttctg ccagactgt tagtaatcta gggacccctt ttggagctga 1380  
 taagtacagt tcagcctttt ctccatcaat atataatgac tttaccattc ctaagaatat 1440  
 aggtatttct gaatgattta aatttgagga attttaatac ataaaataca atgtacaaac 1500  
 tttctgacca ctcatatctc ttctccatca tgtacttagt atttccatt aacctacaca 1560  
 ctgattttta tgctactcct ttagaagaca aaattctggt ttgactcagt ttttgtgttt 1620  
 ataaactttt ggaatgtgtc ccccgtttat gtgaagaatt atgaccttcc agtcataagt 1680  
 aaatagttaa cctcaaaagt gttaactttt gactattcat gtgaggtttg gtttcttgca 1740  
 tttatgtaca tggctgtaaa ttatgtgat ttactctgta tttatgttat ctngctgact 1800  
 tttacttgaa ttgttcaaat tttaaaaatt aaaatacgtc cat 1843

<210> 439  
 <211> 1622  
 <212> DNA  
 <213> Homo sapiens

<400> 439  
 tgtctctact gaataaatac aaatgggttc agcctatcag gactgcactc tcttctcggc 60  
 tgcactaaag ctggcactcc ccagccgtt ctcatgcaaa atacctgtgt cagaatactc 120  
 ctttcatcca tcactcagcc agagtcttca ggacagactc cgcattgggac ttgtccaaa 180  
 aaattctaata caaaagagga aaattttgga atatgccagg aatagtggaa ttttattttt 240  
 taaatttttt tataggccca tatgctctat ctcaagaaac aagatgattg taacatgtcc 300  
 atgattaaac tattggcaga ttattgctgt gttaatctct gtagtctaata gagttctttg 360  
 ttctgttctg ctgcctttta cgttttcttg tcctttcaaa agtgttcttg aaagaaacaa 420  
 agcgaatagg cagttagcac agcacagcta ccccttacca agcagtctat ggaaacaacc 480  
 cctcatccaa atcatgggtt agttaagaat ctaactgggg caattaagat gaattccact 540  
 cacttcctgg tcacttcagc agcccagcgg cattgagcca aaatatacaa ttctgtgtta 600  
 ttagtgagga aactttaaaa ctcatgtttg ttattactta ctaccaatt tcattatcct 660  
 cccttctctt ttccatttct attctctctc acttgaattc tggcattatt tttagtggcc 720  
 tctatgata atacctacce tagagtacat aaaaattata ttaaaagagg aagtacagat 780  
 atgcataaatt ttaacagatt ctataaatggg tgcccaaaa tatgtattgt gccattccgc 840  
 aaatttaaaa gctaattgag gacaattttt ttttaatttc ctaaatgaga ccaccttgga 900  
 tttttatttt tgccatttag atgtttatac ttatttagct tttataaaac ataagccaag 960  
 ctaaatccca cataacaact ctgggtattct tccctcatat gagcagtgat tttatttgtt 1020  
 acccacctta gatagactaa gaaagttcta gtcttgttcc tccttctccc cgcttccctg 1080  
 gggtttttcc ttaccataag tattctggtc cnggggttca gttcctttag tcaagatgtc 1140  
 acaagttaa aaacaaaact tgagaaacta ccaaaggctc aggagttgtc cactttgttg 1200

```

aaatccatta aattagagaa gtctcactaa cagatgtatt taaatatggg tccaacaaat 1260
aattttctttt tctcccttc cccaaattac agtcagcatt taaagctgtt tatggcttgc 1320
catcagcatt attctggtag gcttggtagt gtttaaactt atttgatttt tttttttttt 1380
ttttgcctct taaagtctaa ttttaggatg gatgaattca gatgtttacc agagtgtgta 1440
ttttacataa tgttcttgat taaaaagact tgtttgtaaa ttatccgttg tttttgcata 1500
tgccaggttg atgtgataaa attttcattg tcttgccata taaagccttg gttatcaaca 1560
ggtggaatgt agatattgta aagctttttg tgaattaaaa gtgcaaaata aagcaaccac 1620
at 1622

```

&lt;210&gt; 440

&lt;211&gt; 2172

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 440

```

gtctcttttc cccaggcctt gaagctcaac ccccaggacc accggtaggt gggggcttgg 60
ccagggcagg gcagagtgtt gaggactcag acctttggcc accttctgtc tttatcaggt 120
tatttggaaa tcgttccttc tgccatgagc ggttgggtca gccagcgttg gccctggctg 180
atgcccaggt ggcccttacc ctacggcctg gctggccccc gggcctcttc cgctggggca 240
aggccttgat gggactacag cgcttcagag aggcagctgc tgtgtttcag gaaactctga 300
gaggtgggtc ccagcctgac gcagcccag agctccgtc ttgccttctc cacctcacac 360
tggttaagggg gccaggcaca ctgtcatgct gaggcgggta tcaggagaga ttggctggga 420
ctgcaatacc aagcctcagg tggctaagga gggggcgggg aaggatgggt ggaatgagag 480
gcatgggctg tcctgcttaa aagaaggatc tggcgccctt ctctctccct tctcagcagg 540
gtcagcgagg aggaatctgt gcaccacctc tgtcacctgg ggccctccag ccacttcccc 600
atgtgagctt ggcacctca ggcctacctt cctcaggtg ccctcgaagc actgctttga 660
ggtccctctg cctgtctcca ctcttgcat atccttcctg tcaccgaagc caccaccaac 720
agccctctc ccagactcag agtagaaggc cccatcctct caagcccag gaccttcaa 780
agggctggga catctggga ctgggctcc agcatctgtc tcaggccaga tgagggggga 840
ccggtccctc atagggcagg gccatgtata tatcccttg tgggggacat agtgtgggtg 900
cagttcactg catattttga gaccttattc tctagatcca tagttaatga tgcctggga 960
gtcattcttc ttgccatggg gaagctctct atgagagaaa ggagcccac atccactgaa 1020
acatcctttg gttctcaagc ttcttctgga ggcagtaagg aaaaataaaa cccaccaagg 1080
ctcaagaagg gaactataga aaagttcagg tttttaggct atagcagaga cagtggagaa 1140
gcatctgggc ctttctcttc ctcttggtcc aggggacctc attaccaac tagagcttgg 1200
tgtacaggaa cggggtcaca gtgctgaggg ggcttgagtc ccaccttca gcttgatgga 1260
tgctcacctc ctctcagccc cagctcgtgc cctgttttct tagccatagc cccagaata 1320
ctcacagctc ctcatgccat ttctgtccac gattgctatg tatgactctg acctctctag 1380
tccagtggtc tgggtgtcac ctgctctcac tgctagaata ttcaccaagg gtttgcatth 1440
ggtaagtccc ttaccagctc ctgcttagag ctggtagggc catacatgtc cactctcca 1500
actggtgggt ctcccgctga atggggcctc agcaggtgcc caagctgcta caaccttggc 1560
cactctgtht ctccacccca gcactgggca tggttaattag cctttcccca tgttaattta 1620
ttcagttttt tcaagggtca actgaattcc ccacttcctg ggtaagaagc atgatctcct 1680
tttaatttca cgtctaagat cctggcagct tcccctaact gggtcctctg tagtctgct 1740
gggactgtca gtcattttaa atgtgggtct gcagaaggct ttaggtctcc cccaaccccc 1800
ttacctttca cagaggaacc tttcatcagg ataaatgatt attgctgccc tgtgggtctt 1860
gctcaatact gttcatacct ggagagagaa ggtattgaaa catctccttt atgtgtgact 1920
ttcccaaat tttaaaaatt gtttatgggt tagggccctt aaatactgtg tagcaggatg 1980
aagtctacca ttaccagctg ggtcaccttg gatgggtctg tcaacatctc agcctcagtt 2040
ccctcacctg taaaaatgag ggtagtccct acctcataag ggatattgtg aggatggaaa 2100
gcgaaagtgt gagaaaatac ctcccaagtg cctggtacat agtgggtgct aaataaacca 2160
ctttttgtct gc 2172

```

&lt;210&gt; 441

&lt;211&gt; 758

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 441

```

ccaacttctc ctccgccatg ccccgcaagc agcccgccat ccgcaactcg ctccaccct 60
gcagccgcgc acagagtgtc ggggactcgg aggtggccgc catcgccag ctggccttc 120
tgccggcacct gacgctcgca cagctgccc cgtccttac gggctccggg ctggtcaata 180
tcggcctgca gtgccagcag ttggggtccc tgtcgctggc caacctgggc atgatggga 240
aggtggtgta catgcccgcg ctctcagaca tgtgaagca ctgcaagcgg ctgaggggac 300

```

```

tcagggtgagg gggccgcggg gacctctcgg gctctgctg gaagctggcg gagggaaactg 360
gggcgttcgc gtggagttcg gtggctggcc tgcctccag gactgcagag gctggggcgg 420
ggcctcgcag cgttcacgt cggctcggg gctctggga gagcggcatc tagaggagct 480
gggggtgcag gaggcgatg tctgagctta gtgtctttat tctgatagt gtttgagtga 540
ctgcctggcc ctactatgag tcatcctgtg taatcgtctc aggacctgc cagggtgcac 600
attgttgcca ctacgcagag ccagtaggtg ggggaggcag gattcaaacc caggccttc 660
tgacctgact ttgcaatgca attcctttt ttttttttaa tttaaatttt atttatttat 720
ttatttttga gacagggtct cgctctgtcc cttggaaa 758

```

&lt;210&gt; 442

&lt;211&gt; 1924

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 442

```

ggcaaccgct ccggcaacgc caaccgctcc gctgcgcgca ggctgggctg caggctctcg 60
gctgcagcgc tgggtggatc taggatccgg cttccaacat gtggcagctc tgggcctccc 120
tctgtgcct gctggtgttg gccaatgccc ggagcaggcc ctctttccat ccggtgtcgg 180
atgagctggg caactatgtc aacaaacgga ataccacgtg gcaggccggg cacaacttct 240
acaacgtgga catgagctac ttgaagaggc tatgtggtac cttcctgggt gggcccaagc 300
caccacagag agttatgttt accgaggacc tgaagctgcc tgcaagcttc gatgcacggg 360
aacaatgggc acagtgtccc accatcaaag agatcagaga ccagggtccc tgtggctcct 420
gctgggcctt cggggctgtg gaagccatct ctgaccggat ctgcatccac accaatgcgc 480
acgtcagcgt ggaggtgtcg gcggaggacc tgcctacctg ctgtggcagc atgtgtgggg 540
acggctgtaa tgggtgctat cctgctgaag cttggaactt ctggacaaga aaaggcctgg 600
tttctggtgg cctctatgaa tcccatgtag ggtgcagacc gtactccatc cctccctgtg 660
agcaccacgt caacggctcc cggcccccac gcacggggga gggagatacc ccaagtgtg 720
gcaagatctg tgagcctggc tacagcccg cctacaaca ggacaagcac tacggataca 780
attcctacag cgtctccaat agcgagaagg acatcatggc cgagatctac aaaaacggcc 840
ccgtggaggg agctttctct gtgtattcgg acttctgct ctacaagtca ggagtgtacc 900
aacacgtcac cggagagatg atgggtggcc atgccatccg catcctgggc tggggagtgg 960
aggatggcac acctactggc tggttgcaa ctcctggaac actgactggg gtgacaatgg 1020
cttcttttaa tactcagagg acaggatcac tgtggaatcg aatcagaagt ggtggctgga 1080
attccacgca ccgatcagta ctgggaaaag atctaactcg ccgtgggcct gtcgtgccag 1140
tcctgggggc gagatcgggg tagaaatgca ttttattctt taagttcacg taagatacaa 1200
gtttcagaca ggtctgaag gactggattg gccaaacatc agacctgtct tccaaggaga 1260
ccaagtcctg gctacatccc agcctgtggt tacagtgcag acaggccatg tgagccaccg 1320
ctgccagcac agagcgtcct tccccctgta gactagtgcg gtagggagta cctgctgccc 1380
cagctgactg tggcccccctc cgtgatccat ccactccag ggagcaagac agagacgcag 1440
gaatggaaaag cggagttcct aacaggatga aagttcccc atcagttccc ccagtacctc 1500
caagcaagta gctttccaca tttgtcacag aaatcagagg agagatggtg ttggggagccc 1560
tttggaagac gccagtcctc caggccccct gcattctatc agtttgcaat gtcaaacctc 1620
ctctgatctt gtgctcagca tgattcttta atagaagttt tattttttcg tgactctgc 1680
taatcatgtg ggtgagccag tggaaacagc ggagacctgt gctagtttta cagattgcct 1740
cctaatacag cggctcaaaa ggaaaccaag tggtcaggag ttgtttctga cccactgatc 1800
tctactacca caaggaaaat agtttaggag aaaccagctt ttactgtttt tgaaaaatta 1860
gcttcaccct gtcaagttaa caaggaatgc ctgtgccaat aaaaggtttc tccaacttga 1920
agtc 1924

```

&lt;210&gt; 443

&lt;211&gt; 2169

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 443

```

tgagtgagta aatctctttt ttgctctttg aaaaatttta cactattcaa tcttttctgc 60
ctaatttgac cctaattttg atctcatatt gtaatagtgt ggaaatatta gctcatattt 120
tagttaagat tgagctctat acttgaaaga gaattatttt tgaactagga atttaattga 180
accttgatat taagctcact ccaagtatgc agtttatctg gctttctata gatatactcc 240
tgtaaatttt tataccttga tattaatggg gacttcagtc agctggcata atagaacaa 300
cataaatttt ggaggcatat tgatctgggt ttaaatccca gacctatct cattttagtt 360
gtgtgacttt agtgatattc ttctctgga tccatttgc catgtgtaaa atggtgctaa 420
caatcttggg catgcagggt ttttgatgat cattaaagat aatatatgta tcgggagaa 480
ggcgtgaacc cgggaggcag agctttagt gaggcagat cgcgccactg cactccagct 540

```

```

tgggcaacag agtgagactc catctaaaaa aataaaaaaa taaaaaaaag ataatatatg 600
tatcaaaaata gcagaggatg gaaaaaatat accatgcacc caataaaaaa aaactggagt 660
ggatatactg atgatagaca aaatagactt tagaatacnc cnnttactag agataaagag 720
ggacatctca tgttgttaaa aggggtcaatc caccagaacg atctaacatt tataaacatg 780
tgtacaccta acaacagacc tccaaactat ttgaagcaaa acctgacata attgaaggga 840
gaaatagaca acaataatat ttccggggctt cagtaccoca ctttcagtaa tgggtagaac 900
aatgaggaag aatatcacca aataaataga agactcaaca gtactgtaaa caaattagac 960
cttacagata tctatagaac accacaccca ttagcaaaaag aagatacatt cttctcaagt 1020
gtacgtgaaa tattcttgtg gatagatcat atgctaggcc atgaaacaag cctcaataaa 1080
tttaaaagga ttgaaatcat acaaagtgtc ttctctgacc ataatagaaat taaattagaa 1140
attaataaca gaaggcaaca gaggaacat tcacaaatat gtgaaaatta gataacacac 1200
tcctaaataa ccagcaagtc taaaagaaat cacaaggaa ttagaaaaca ctttgagatg 1260
agtgaataaa aaagacaaca tacccaactt tgtgggatgc agctaacact atgcttaaga 1320
gggaaactta caaccatagt catctatatt caaaaaaaat actggggcat ggtgggtccat 1380
gcctgtagtt cctagctact tgggaaggctg aggtgggaga attttttgag tccaagagtt 1440
tgaggtcagc ctgggcaaca cagcgagacc cgtctcttta aaaaaaaaaa tcctcaaact 1500
aataacctaa catttcacgg taagaaaaga gaaaaagaag agcaaaactaa acccaaaaca 1560
agtgaagaa aataaacagt aaagactaac aaggaaataa aagaaataga gaatttttaa 1620
aaatagagga aatcagttaa accaaaagtt gattctttga agaggtcact caattgataa 1680
ctttggctac actcttcaaa aagggggaag agattcaaat tactgaaat atgaacgaaa 1740
gggggattta actactgcc acacagaaat agaaataatt gtaagagaat actctgaaaa 1800
actatagcc aacaaattag ataatttaaa atggacaact ttctagaag acacaaattc 1860
ccaaaactgg ttaagaagaa atataaaatc cgttgggcac agtggctcgt gcctgtaact 1920
ctaactcttg ggaggccaag gtgggcagat catgagggtta ggagttcacg accagcctgg 1980
ccaacgtagc gaaaccccg tctgtactgaa aatacaaaaa ttagctgggc aaggtggcgc 2040
atgcctgtag tccagctac ttgggaggct gaggcaggag aatcgctga acctggggag 2100
cggaggttgt ggtgagctga gatggcgcca ttgcactcca gcctgggcaa cagagcaaga 2160
ctccatctc

```

&lt;210&gt; 444

&lt;211&gt; 1630

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 444

```

ggatttttgt ttacttggtt ttttatctta ctttcataat attttggttt tgtttaggca 60
ggcagttata cttgcagatc agtcatccct tgagacctgt tttttagttt tgctcaggca 120
agactaaaat agctttcagt ccagagattg ttcagcctta ccagagagac atgaatacct 180
tggataatca gtaaggcctc tccattctgg ctctcaggag ctgatcaat tctaaggccc 240
atgcgagctc tgggaatatt tagtttagca tgttttagtc attctttgtc cagcagagtg 300
gaatattggt ggtccacata catggcccaa tactcagcaa acgctcaagt agacatactc 360
tgtataatca cggcccaata ctcagcaaat gctcaagtag acataactctg tataatcacg 420
gccccaaact cagcaaacgc tcaagtagac atactccata taatcacttc ccttccagaa 480
ctctgcttca caacttccag ctgcctcagc ctatctgac tctgatgttt gtttncctca 540
ctccctttcc tggctctttt tgagtctctc catcattgca actgcagtac aaaaattgcc 600
tctgtcatag atgatcacag ggcttacttc gtttgtttct ttcttctcaa ggatcatagt 660
cttgtgctgc ttattactta atgcctgaaa ataattgctt tatatgtttt gtccagtttt 720
ctagttgttt tctccaggat ttcaagtcga gtgcttttac tctctcatgg ccaacggtec 780
ctttagtttt tatcgtgatg atggtcttaa tctccacttc tgatcttcat tctaattgtg 840
tgctatacat tgggatgcct tttaaatttg gaaaatcatg ctcttgaaa ttttttagga 900
aacgttctta tgtctttgct aacttctctg ctattgtcat ctaaaatttc attttctgga 960
atttcogttg gatattggat cccttggatt gagcctocat tttccttggg tctttcttct 1020
atttgtttgt tttggatact gccatttctt ttattatttc cttatatctt atatgagatt 1080
tacttgacct taccttctgt atgagtcac tttcacattg ccataaataa ctacctgaga 1140
ctgggtaatt tatgaatgaa agaggtttat ttgactcaca gttatgcatg gctggggaga 1200
cctcaggaaa cttacaatta tgggtggaagg tgaagggaag gcaaggcagg ccttacatgg 1260
cagcaggaga gagagagaac aaaggagaa gtgccatcct tttaaacat cagatcttgt 1320
gagaactccg tcaactaacac aagtacagca tgtgggaaac caccctcatg atctaatac 1380
ctcccaccag gtccctccct cgacacgtgg ggattacaat ttgagatgag atatgggtgg 1440
ggacacagag tcaaatcata tcatcttcca attattctat tgaattttta atttctatca 1500
tatttttatt tctaagagct tttctttgtt ctctacttat tcatttttat attactttgc 1560
tcttatttca cagatgcaat atgttctctc atatcactaa tgagggtta taaagttttt 1620
ttgcagttct

```

<210> 445  
 <211> 1196  
 <212> DNA  
 <213> Homo sapiens

<400> 445  
 attccctgtg gcagaattta ttaaagcccc tcaagaagga caccctcccc cacccccaca 60  
 aaaagtaatg cacatgagca gtgctcctct tacaggcagg ggcctcactg gatgcttcga 120  
 tgtgtcttac catggctcac agctgcagac ttagggtttc catccttatc tgggccttgt 180  
 gtagtgcttg ccagtctttc ccagtgtcct tgggtctgcta cccacttagc ccttcttgga 240  
 tcaatgttag atctattttt tcctagaaaa tcattcattt cacataattt taaaatgtat 300  
 tgggtattcag ttgatcatag tattctcatc taattatttc acattcttct gcagttttgt 360  
 ttccctttctg aatctaattg tgatttgggt ctgctaccct ttttctgtat tagctatgcc 420  
 aacagtttgt ctgttttatt ggccatttta gaaaattagc ttttggtttt attgagcaag 480  
 tttctttttg ttttctactg aatttctact tttattgtta ataattcttt cattttgtgt 540  
 tctctggatt tagaaattat aaaacagatt tgatctcatt ggccttcatt ttttcattag 600  
 ctcttgaaga tgttgatcta aacaaagttt acatcctcgg tgggcttgtg gatgaaagca 660  
 ttcagaagaa ggtgacattt caaaaggccc gggaatactc tgtcaagacc gcacgcttgc 720  
 caatccagga atacatgggtc agaaaccaga atgggaaaaa ctatcattca gagatactgg 780  
 ccatcaatca agtgtttgat atcctgtcca ctacttaga gactcacaac tggcctgaag 840  
 cattgaagaa aggagtttct tcaggaaaag gctatatctc tcgggaactca gtggaatgat 900  
 gggcctaaga ttgcagctgc gtggccagggt gctcacgccc ttatggccaac actttgttag 960  
 accgaagtgg gcagatcacc tgaggtcagg tgttcacgtc cagcctggcc aacatggtga 1020  
 aacccttctc tactgaaaat acaaaaatta gccagggtgt gtggcgcata cctgtagtcc 1080  
 cagctacttg ggaggctgag gcaggagaat cacttgaact cgggaggcga aggttgcaat 1140  
 gagccgagat ttcaccagtg cactccagcc tgggtgacag agcaagactc catctc 1196

<210> 446  
 <211> 1978  
 <212> DNA  
 <213> Homo sapiens

<400> 446  
 gtgggacaca ccatcaggaa ggggcctggc tgaggggacc cctaccgcag gcaaactagg 60  
 accaactctt ggggctggca ccaccaggag cccaggcagt cctccaactc cgagagtcca 120  
 tggagacaca gggttccccga ggaaaccgtg gcccgagcgc cggccaccgc ggcccgtgc 180  
 gaccaggaca ggcgccccaa ccccgctctc aggtcctctc gcctctccgg gacccccagg 240  
 cccagcgtct acctctgact ccagtogaga gctcactccc cactcagcct tgacgtccga 300  
 ggcgacctct gacgtctcgg acacttcacc acccacccca gaccggcct cccggacgaa 360  
 ccccgacctc atcttgacaa gccctgactt tgctttgtcc acccctgact ccagtgtggt 420  
 tccccggttg accccggagc cctcaccacc gcccttacc accctgccc aagagctgac 480  
 ctctgacctc tctacaccgt cggaggtgac cagccttcc cctacctcag agcaggtccc 540  
 agaactctgac acaaccocag atttggacac aactccatac tccagtgcag tctcagaata 600  
 ttctagatcc ccagaccctt ccccaagccc tcacccact actaccctg atcccaccat 660  
 ggccctgac cccatcaca ccttaaccc tactgtgacc cctcacttcc ctaccaccac 720  
 tcaccaccac acgaccctc acccaccac catcactcac tccaccatga ttcctgacct 780  
 caccacaacc cctcaaccct tcaccaccat cactcactcc accatgattc ctgacccacc 840  
 cacaaccctt caacccttca ccaccatgca gccaccaca acccctcact ccacaaccac 900  
 tcaccaccac acgaccctc atcccaccac catcactcac tccaccatga ttcctgacct 960  
 caccacaacc cctcaaccct tcaccaccat gcagcccacc acgatactc atcccaccac 1020  
 gaccctctcc ccaccacgac ttctacccc caacaacccc tcaccaccac acaaccctc 1080  
 acccaccat gactcctgac ccaccacga ccccttacc caccactact cctgatccca 1140  
 ccacgacccc tcaccaccac actctgaccc ttctcaaccc ctgtgatact actgtggcct 1200  
 tcaacctcct tggggaagaa ctctgtctct cactctagca ccaacagtca agcccagtct 1260  
 gcacccccag ttgaccttca cagcacctgc cctcacacc tccacatccc agataccac 1320  
 cttagagccc tctccagcct tggagtccag cccctccagg tccctccacag ccacaagcat 1380  
 ggaccactg tccactgagg acttcaagcc acccagaagc cagagcccca acctaacccc 1440  
 ttcaccacc cataccccc actcagcctc tgaccttact gtgtgcccctg acccccttct 1500  
 tttcccccac gaccaccctt tggatcatcc tacccttgac tccctcacc tagggccaac 1560  
 tcctggcaga gcccatgccc ccattgtcca tgtgtggccc caacaccacc tghtaagggtc 1620  
 atggcttgtg agccacctgc cctgtgtggag ctggtgtgctg ctgttgaggg atgtgggtg 1680  
 tcaactgcag aagactgacc caggtcgtgg aacaggagcg gcaggagcgc caagccctgc 1740  
 tgctggggct gacgcagctg gtagaagctg cccggggtct ggggcagctg ggtgaggtct 1800  
 tgaagagact ggcagagatg gcctggacca ccagcatgcc tgcaccaacc accactacc 1860

cagaggaaga agaaagaccc ctgaggggag acgtgtgacc ctctccagga tttgaggggc 1920  
 ttaagacacc cccaacccaa aaaaacaaaa acaaaaaaaaa accccaaagt atctaatt 1978

<210> 447  
 <211> 1404  
 <212> DNA  
 <213> Homo sapiens

<400> 447  
 caagtcccc gagcctaacg gacagcctga atgggaattc aagtatagtt gggagacttt 60  
 tggaatatgt ctatacccat tgggaacatc cattggatgc tctgagacac caaaccaaaa 120  
 tcatgttcaa aaacotttctc caaatgcacc ggctcactgt ggaaggtgca gatttcgtcc 180  
 ctgatccctt ctttgtggaa ttgactgaga gtcttttacg attggaatgg catattaaag 240  
 gaaagtacac gtgccttggg tgtttggtag agtgcatagg agttgaacat attttggcta 300  
 tagataaaac tattccatct caaatcttag aggtgatggg agaccagtca ttggtacctt 360  
 atgcaagtga cctcttggaa accatgttta gaaatcataa gagtcatctt aaatcccaga 420  
 ctgctgagag ttcttggatt gaccagtggc atgagacttg ggtttctcct ctccctttta 480  
 tattgtgtga aggaaacttg gatcaaaaat cttacgtgat tgattattac ttgccaaaat 540  
 tattaaagtta cagccctgaa agcttacagt acatggtaaa gattcttcag acttctattg 600  
 atgctaaaaa tggacaagag caatctttcc catccttagg gtcttgtaat agcagggggg 660  
 ctctgggagc ttgatggca tgtctgcgaa tagctagagc tcatggacat cttcagtctg 720  
 caactgatac ctgggagaac ctctgtctcg atgcaagaat aaagcaaggc ttaattcatc 780  
 agcattgcca agtaaggata gatacattag gcttgctttg tgaaagtaat cggagcacag 840  
 aaattgtttc catggaagaa atgcagtggg ttcatgtctt tattacatac aatcttaaca 900  
 gccagtctcc aggagtgcgg caacagatct gttctcttct taaaaaggta gaatttccca 960  
 tcagaaggca tagggaagtg gtgaactttg tttgggaaat cgttttttaa aagagcccag 1020  
 attttgggag cgtgtgggaa tggatcatga attgggctac cacatctgtt catgacggcc 1080  
 gttctgtgac ctgttctctc attccataaa gcttacattt gggattaaaa tccagagtga 1140  
 aaagcacgca cccctcccc caccattttt ttccaggagt tcagaatcag cctgggcaac 1200  
 acagtcaaac cccatctcta ctaaaatata aaaaaattag ccggttgttg cagtgtgtgc 1260  
 ctgtagtcct agctatttgg ggggctggag caggagaatt gcttgaacct aggagcggag 1320  
 gttgcagtga gccgagattg taccactgca ctccagcctg ggcaacagag tgagactcgg 1380  
 tctccaaaaa aaaaaaaaaa aaac 1404

<210> 448  
 <211> 1293  
 <212> DNA  
 <213> Homo sapiens

<400> 448  
 gttacttcat caagctaaat agcagccact aaatggagaa acatctaaga tagcagggat 60  
 actgttggaa tagcagaaca gtcttaatag tgaagcttct tttagaaagc agtatatttg 120  
 ctggcatcct tctagaatgg aaaaaataat actaggctct accatttgac ctggctgtgc 180  
 caaaacatgt aagcagcttt tccacatctg cccacatct gtacctata tttttacca 240  
 gagagaaaaa acaaaacttc aaaagtgtaa tgctcggaag gctactggca ttgccctttg 300  
 ctgtgagggc agtttcttgt ccttcaggtc aggcagattc ttttaaagtc ttcaagtaat 360  
 togtgtcagt ttcaggaccc tctatttga cttatactta tggtttttct ccaatttcag 420  
 agtcgggaag acatcactca tgaaccagta tgtgaataag aaattcagca atcagtacaa 480  
 agccacaata ggagctgact ttctgaccaa ggaggtgatg gtggatgaca ggctagtac 540  
 aatgcaggta agcacatgtc ttggctgtgc tgaccaggcc ttgatagttc atttagtctt 600  
 aatctttcct catgcataga cattttctct ccctgttctt caaatcttat tatcttattt 660  
 gtagataatt ggctgatact cagttaaatt tgaatttcag atcaatagtg aatacttttt 720  
 tagtatactt ctagtgtatc tcagatacga cttgctaaga cacactaaaa aattcttctt 780  
 aaaaaaaaaa tcagatttat cctttcttgt tttttgttgt ttttggtttt gttgtttgtc 840  
 aaatttggca acctgcaggc ctctgtcttg tgcctctctt gacatccttg cccagtgcct 900  
 taggtaaaaca ctttgtctc acctcagtag tgagacataa actttatttt tctgacttcc 960  
 tatttcatac gtaacttcaa gagttgtgtg tctattgagc caatcttttt tttatgtatc 1020  
 agcttattaa tctttcaagg gttccctttc aacagttagg ataagataca gattctttca 1080  
 tatgacttgt tgaagaagcct tcacattctg gctataaact attattccct ttttttcccc 1140  
 cattgagtc ttttgtttgt atacatgttt taacatccct agaaaagaaa cccctgaagg 1200  
 atggatacct tgagcccagg agtttgtgct tgcagtgggc tgtgactgct ccnttatact 1260  
 ccagcctggg tgatggagtg agaccctgtc tct 1293

<210> 449

<211> 992  
 <212> DNA  
 <213> Homo sapiens

<400> 449  
 ttttcttcca ttactgagaa gccagtaata taatgttggg aacagtgaga taattcaaag 60  
 ggactcctgg gtgggcttca ttatattagc tggcctaagg tattatgttt ccaataaacac 120  
 cccagtcact agaggcactg aactcagtag cagcagttcg cttattggga gtagggttgt 180  
 gcttccatct tgccagctgt ttcaatagga aacacatacc agcccttggc catggcctag 240  
 tgaccctgct ttctgtggag tctaaaccc agagaacctt ttgtgtgatt ttctattctg 300  
 tccatttacc tctaactgtg ccagaaaatt aaggataatt ttctcttttc tactcttaga 360  
 aaactactcc aaatgataag ttaattaact caaattctaa aaaattagaa gcagcacttg 420  
 aaactaagca taacatcctg atctaaagag tctttcatgg agtgaattat aaatgttatt 480  
 cagactttgt tctgttttaa tcttttctaa gcaggaacat ggtgtattct gtgccctcta 540  
 agtctttctt tacagttcta attcaggatg ctaattgcct gcattccatc tgagtcaatc 600  
 tgtatacggg gtactaatga tcagcatttc ttcaactttt ccttttttta tagtgggtgt 660  
 aaatgttcat ataaaaatta gaaaatatag gccaggcatg gtggctcacg cctggaatcc 720  
 cagtgccttg ggaggccagg gtgggaggat cacttgcgtc caggagtgtg agaccagcct 780  
 gggcaacatg gggaaacctt gtctctacag aaaatacaaa aattgggttg gtgtgctggt 840  
 ggcacactgt agtccccagc tactccagtt aaggtaggag gattgcctga gcccgagggt 900  
 gaaggctgca gtgagttgag ataacaccac cgactccag cctgggcggc agaatgaaac 960  
 cctgtctcaa aaaaagagaa agtataccta ag 992

<210> 450  
 <211> 1029  
 <212> DNA  
 <213> Homo sapiens

<400> 450  
 ggcattggccg tgcagtgttt aggggtgctct gggaacacct ataagaaggg ctacatctat 60  
 ttgggataat gaattagcaa agcttcccaa gagcagggtg gggtcagcc ataagtacca 120  
 gctggctggc tagacaagtc agaattggctc tggaaatgcct gtctagagga tgcaggcttg 180  
 tgtgtcttcc agaccagact cctcatctcc cacttctccc cagcaagcag gaattctgta 240  
 ataggtagcc agactctgct gagggctgat gtgcaggctt ttaattgaga tcagatctcc 300  
 atagacttta aacatcaaac aagcagataa aaagatgagc aatctttgga aatcaaaggc 360  
 ccaaatacaac gaacccaag ctgtccaagg acaccgctga tctgaggtgt tgctgcttcc 420  
 ttatcttgtt ctagaatctt ccagggcccc actctgcctt ctgtgtcttg tactctctc 480  
 cctacgatta tagttcttcc tctctaaaaa cccacatgac atttacagca gtcactttaa 540  
 atgaccaagt gaccatcagc agcaccctaa catgctttca tgggcatgca agcccagcct 600  
 ttccacgtgg gtgcagccac agtctctcag ctccctgtgg ttgggtttcc aggggagcgc 660  
 agaaccattg tctcgtgtac acggattgtc aacaagacca caactctggt gaacgacagt 720  
 atctgccctc aagcaagccg ccagagcctc caggctcgaa ggtgcaactt gcacccctgc 780  
 cagtcaagggt aagaagctgg gttctgtagc ttggaccac cagagtctgg ggcggcagca 840  
 ccatcagtggt tggggagtga tatgcagtta atgccacagt actgctctat gctgtgttcc 900  
 gttattgttg atgagagatt tccgcttgct caaattacca aatttccagc tactaagcca 960  
 ggactctgat ggaaatacaa ccttcactgg aaggcattgt gtaggagacc attagtaaca 1020  
 tctcatggc 1029

<210> 451  
 <211> 1110  
 <212> DNA  
 <213> Homo sapiens

<400> 451  
 aacataaatg ccttctctct ttttaataac cgttaccgt agaatatctg aaggactttt 60  
 tgacattttc antagtatct ttacaccaca gagcagagaa taagtaaaaa aacaaaaaac 120  
 cacacacaca cagttagcaa tgcacatagg tcttggtccc atgtggagcc tgccattgtc 180  
 atgtcctgcc tgtgtatgtg ccattttggc caactttatg tgcacacatg tgtggggtta 240  
 tctgggcgta ttcagaaaag atatattgca gctaaagggg gctgagaggg tctttttttc 300  
 cctcagggtt gctgaataaa ctgtgtgttt gtatgcctgc attttgtctg tgaattgtca 360  
 catgagggtca ggtgtggaaa ttcccacatg tgggtgtcatt ttggtgtcga gacatcagat 420  
 tttcagatta gggatgcccc acctatatat gtgtaattta cttattattt atttatttat 480  
 tgaaatgaag tctcactctg tcacccaggc tggagtgcag tggcgctatc tcagctcact 540  
 gcaacctccg cctcctgggt tcaagcattt ctcctgcctc agcctctcaa gtagctggga 600

```

ctacaggggac tacaggtgca tgcctgtaat gagaatttca gctgaaggat aattagaaca 660
gttgtcaagg agtaaaaaaa tcttgcagtc atcattcagt ccagcttctc cgcagtgaac 720
ctgagctact ggtacaaaat gtttgtgaga ccacatccgg ctaatttttg ttttttagt 780
agagacgtgg tttcactatg ttgtccaggc tggctctaaa ctctgacct caagtgatcc 840
acctgccttg acctcccaaa gtgctgggat tataggcgtg agccaccaca cccggcccg 900
aatttcttta ttgaaaaatt tttacaagga ggcataaagt tggagttgac aaaaatgcaa 960
aaattagcca agcatgggtg cgggtacctg tggctcttagc tacttgggag gctgagacag 1020
gagaattcct tgaacttggg aggtggaggt tgcagtggag tgagatcatg acactactcc 1080
agcctgggtg acagagtgg actctgtctc

```

&lt;210&gt; 452

&lt;211&gt; 1181

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 452

```

ttctagtaga attactaggt catagggcgt acacttttct tgtttctttt ttaaattagg 60
gaacagaaca ttgtgtaaaa acaagttgta actcattgga aaatatagaa aagtagaaaa 120
atagcagaaa tatggttaag gttcttgata tacatgcaat ttgcttttga atttttttac 180
taattttatac atgtagcagc aatgtggaag agtacataac taagctgggc atgggtggctc 240
atgcctgtaa tcccagcact ttgggaagct gaggcagggt gatcacgagg tcaggagttc 300
gagaccagcc tggccaatat ggtgaaaccc tgtctctact aaaaatacaa aaaaaaaaaa 360
aaaattagct ggggtgtggtg gtgcgacact gtagtctcag ctgctcagga ggctgaggca 420
gaacagttgc ttgaaccag gagatggagg ttgcagtggag ctgagatcgt gccactgcac 480
tccagcctgg gcaacagagt gagactctgt ctcaaaaaca gaaaaaagaa tataggatat 540
ttccatgtat catgatggtt tcagaaattt tttagagagc ttcataaagc ctttgtaaat 600
gaaactactt caaagagctt ttacctttct atttgaggta ttcttttcat tgatttctctg 660
ctgaggaata ccaggggtta attctatgag agtaattcag aataaagatt ttagtatcac 720
ctccttgaat tttttcacac tgttttgagg gatatttctg aaagcattta tgtcacttca 780
ctgcagtaaa gaatagcacc aaaatcaaat agtaagaat atattggtga agtaattgt 840
tataaagaca aattcagtga taaagccaac atctcacatg tgtaagaat ctgctaacc 900
gctggatgag gtggctcaca cctgtagtcc cagcactttg ggaggctgag gcgggaggat 960
cacaaggtta ggagattgag accaccctgg ctagcacggg gaaaccccg ctctactaaa 1020
aatataaaaa attagccagc cgtggtggtg catgcctgtg gtcccagctg ctggggaggc 1080
tgaggcggga gaatcacttg agcccgagg gtggaggttg cagtggaccg agatcacacc 1140
actgcactcc agcctgggag acagaggag actctgtcta g

```

&lt;210&gt; 453

&lt;211&gt; 1052

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 453

```

ctcctgtccc taaaggggtt aagagagaga tcacctagaa atccctctgg acacttgtgg 60
gttctttagg gtttgagttt cttcttcccc ttgagcttca gagaggagag ttggcatgg 120
taaactctgaa tggttacctc actgctgaaa acccagaggg gcgtggcaca ctgcttctg 180
tggaaaagcc tctaaatgca tcccttccct tctttctgct ttcttttggc ttacaattga 240
agcagcccggt ggtaccatca cagtatgcag agacttctc acctttcata tctagggacc 300
accccgatg cattggtgag ggtgggcact tataaatgcc tgcatttgtt aagccattcc 360
agcctcttcc tctgaataga ccagacgccc tttcacttag ttcagtggca gtccttttgc 420
cttcccaacc ctgctgttag gctgctgtt ccctttgctc ttgattagga gagatggaag 480
gagatgagct cccataactg aattggcctt tggttcatgt tttctcccca tatgtatata 540
tgccatagt gaatatgcca tatatatgtg ccaacaaatc tatctacgtt gttcttttca 600
aattagcacg cagataggaa ttttgagttt cttcttcttt tagtaactag tataacaagc 660
actggtattt ttgtacaaaa aagaaaaaca aaagattgac tattgtggtc tgcattgacat 720
aaacaaacaa atggtgatat caaagcaacg tataccccag tccagtgtgt gttgccataa 780
tttgcaattc agcttaacag tgcacccaat ctatatttgc attttgatat tatttaagct 840
ccatgtacaa ggtttgcat gtatttatat ggttcttagg gaaaaaaaat gctataaact 900
gcaaatctga aattcaaatg tgttgttcca ctgagaccag aagaagaaga ggagttttaa 960
aaggataat ttgttgaac caataaagct ttttctgtat gaacagaaac caatactgct 1020
gtgcactgag aataaaaact catgccact tg

```

&lt;210&gt; 454

&lt;211&gt; 1637



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 454

```

aaagttttca aacacagtga aattttcatg aaactaattg tgaacaggga aaagccagga 60
gaactaaatg tatatgcctg ttcacagccc tgcttttaat ttccaagcac tgttttcaga 120
aagccagggt tcagtgtatt ccgcagaata gacacagagc tctgaagtgt cctgggtcaa 180
atgcaacaca tcctgtcctg tcttcttaaa ggacttttcc tgtccaatgg cttcccaatg 240
ctttctgggtg ttccaaaatc aatcacacac cacacaggcc taaaccgcca tggcccaggg 300
ctctacctga ccgctggcca acccccaagg caggttccca gagggccatt gaccagggtg 360
tccattcact caactcttga attcatatat taaagtcaac tttttagcac ctatgggaca 420
cagtgatggc tttctcgttt cctcattgcc cttgagccgt gctctgtcag cactgtattg 480
tggttagttc tatttttgcc atacttaatt tgttctaaac tcttgaaaca gaaggcattg 540
atgtgtgaa acagaaggga ttgatttggt atatcatgca aaccagtaaa aaccaaaatg 600
tttttggtta gaatgagcta ctgaagtacc ctgtgtgtga ccaagtgtga ccagaggagg 660
actggactgg gtttactgtg agccctaccc acatgccaac tcacacctcc tccagcttcc 720
tcattcgtca agtaggggtg ccctagagca ggggctcttg accagccggg cgtcagttac 780
ccttggggagc agggctacaa aacaaaacaat ggaacaggct cttggggccc ctccagccat 840
tgattcaata ctctagggga ggaactgagc aatctgtata tcaaaaaaca aaaaccttcc 900
cccgggggct tctgatgctc agccaggatt tgagcaccac cagatgaggc catctgtaag 960
atgcctcgcc agatagcctt gggctcatga aaggctctga gctattgttt ccccatctgg 1020
agaataagac tgtgatgggg ccagtcacat gggccagttc tggggattac atgagtgtgt 1080
gtggaggggc tagtgcagtg cctggcatgg aacaggtgct cagcagctgg atgctgccag 1140
ctttctctca ctacagaaaag acctactgat gccacagca tgccagacc ctttctgga 1200
cctggagagg cagtgggaag gaaggcaagc ctctgtcct cactgaactt ccatcctgtg 1260
ggcaagtcag gcaggaacaa agtaaacaaa gaaataatag agcttcaggc agttttaaat 1320
attatgaaaa ctttaaattt tgaaatggta aagagggtcc agtgtaatgg ctcatgccctg 1380
taatcccagt actttgggag tccaaggggg gcagatcacc tggggtcagg agtttgagac 1440
cagcctgacc aacatagtga aaccctatct ctactaaaaa tacaaaaatt aagcaggcat 1500
ggtgacacac gcctatagtc ccagccactc aggaggctga agcaggagaa tcacttgaac 1560
ccgggagatg caggttgcag tgagctgaga tcacgccact gcactccagc ctgggtgaca 1620
gagccagact ccatccc                                     1637

```

&lt;210&gt; 455

&lt;211&gt; 1158

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 455

```

caacctttta gaactgtggg acagattaac cattaccagg tcttacggat ttgggtgggag 60
cagggagagg agaagcagggt ggttgtggct ataagagggt ggcacaagtt atccttgcac 120
aggaactgtt cagtcttttg acgggtgttg aatatatgaa cctctacagg tgatagaatt 180
gtatggaact taatagacac atatacacag gcaaatgagt gcactaaagc tgggaaaaatc 240
tgaattagat aggtgtatga atgccaatat catggttatg atatgccata gttttgcaaa 300
atgtttccag taaactgggg gaagtgtaca agaggctctt gtatgttatt tcttacgatt 360
gcatatgaat ttacaattat ctcaaaagtt tcaatgaaaa aaaaagtaga cagcttaggt 420
aaaagtatat aggccttttc ctagttaaaa agtagtaatg ttaaagtata tattcgggaa 480
agacagttga atatatTTTT aaggaaaaca tcatgttctt gtatatcagt agtaccaaaa 540
ttgcttagta catcaaaatc aggaataaat tctcagtggt ggatctactt tctttttttg 600
ttcatgtaaa aattgaagta tgggtgtttta acactcattt ctctattcaa aattaagtag 660
attttaattg atgaataaatt catatgtaca cataaatggg taaaaaaaagg atttataggc 720
aataccattc cttgcatata ccccttgatt gcactgtgcc tggattatth gcattagctc 780
taaaattgga ataaccgta ttgtttttga ttggagaact aaggatgtaa gaattcttta 840
tattctatcc tgaattctga aaattatagt gtaaaaggat gtgcaggctg ggcaatgggt 900
gtcacgcct gtaatcctag cacttcggga ggtcaaggca gaggattgcc tgagcttagg 960
agtttgagac cagcctgggc aacgtggtga gatcctgtct caaataagta aataaaaaaga 1020
tgtgcagaat tacattttgc ataatatatg gggagcagta agatctagaa tatgaaactg 1080
ttgtcactct ggaattatca acatgggtact ctgactgaat taaatattct caaatgagca 1140
gaacaaaacc tggatatcc                                     1158

```

&lt;210&gt; 456

&lt;211&gt; 2304

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 456

```

attatggaat cacccaatca ataaaattaa gacaaatcct aaacatttaa gcagggtcatc 60
tgcacottgg taacccatca atgaattacc tacctcctgt ggctactgtc atttcttagt 120
tgcattgtct ttagtgtcat ttatctccat tattcagtag cctactcatt attctctatg 180
tcccttagtc cagacccaaa gtctggtgat tcagattgat gttcttatag tccatctact 240
gtatttcccc tgcatttaca tttctcaaag acgttatcag tttctctgtt cacaaccgtt 300
caagggtccc caatgcctta tgataccatg tgagctcttt taagtgaagt ttcacgaaga 360
agccctcttc taccttttca accgtgattg ctgctgtgct gcatagtttg atcactctta 420
tgctgtgatc cagccataac aaactacttg aagtc aaagc aacaaaatcc tcacctaata 480
attagaagtc ataataaag tcatcaacgt gtttctggat gtgggtttcac aaagatctca 540
aagtgaatac tnnattagcc cacttacag tgattttcta gcccatttaa aagttataaa 600
gtgggtcatc agcactagaa gcaagtgtga ctggggagggt tgggaacttg cagtctaaat 660
tattttgata ttacatgaa gaatgactga tatatccttt gataaaaactc ttgcaacttc 720
tagcttagtc acaccaagaa atatagggtt aaagaactaa atataacccat atagtctatg 780
atatgggtta gctatgatat ggggttagctg tctcttaacc caaatctcac cttggaattg 840
taataatccc cacatggcaa ggggaggggc agggggggat aattggatca tgaggggggg 900
ttctcccata ctgttctcat ggtagtgaat aagtctcaca atatctgatg gttttataaa 960
tgggagttcc cctgcacaag cactcttgcc tgcacccatg taagacatga ctttgccttc 1020
cctttgcttt ccaccatgat tgtgaagcct ccacaacccat gtggaactgt gagtccatta 1080
aacctctttc ctttatgact taccagctct caggatgtgc tttattagca gcataacagc 1140
agactaatgc aacaggctaa gaaggaggtt acagtattgg ccagggtgat tgacctggac 1200
tatgaagacg aatcagctct actactccac aatggaggta aggaagagta ggcattggaac 1260
acaggagaac ccttaggggtg tctcttagta ttgccatgcc ctgtgattaa tgtcaatggg 1320
aaactacaac ggcacaatcc tggcaggact acaaatggcc cagatacttc aggaatgaag 1380
gtttgggtca ctccagcagg tacaaaagcca caacctgctg aggtgcttgc tgaaggcaaa 1440
gagaataagg aatgggggta gtggaataag gtagtcatca atagcagctt cagccatgtg 1500
accagttgca gaaatgagga ctgtaattgt catgagtatt tectctttat tttgttgaga 1560
acatgtttgc acatatatat acttgacta agaaaatata ttcattttat ttcctttatt 1620
tttcttttat catgtgatgt aagatttgtt gacttcatat cagcatttaa gtgttaactt 1680
taggtaatag catttggtt ggggattggt gcactcccag ttgtacaaag gatagctgta 1740
ttgtgttagg tgtaattatg acctatttat tggcttcagt tgaagattat gtgtgatttc 1800
aggagatgtg gatgggttca agttgacaaa gttgtgatgg ttaatatgta gtgccaactt 1860
gattggattg aaggatgcaa agtattgttc ctggatgtgt ttgtgagggt gttncaaaag 1920
gagattaaca tttagtcag tggactggga gaggcagacc caccctcagc ctgggtgggc 1980
cctgtctaata cagctgccag tgtgaaagga ggcattggaga gaacagacct gctgagctct 2040
ctggcctcca tctttctccc atgctggagg ctctctcgcc ctggaataac agactccaag 2100
ttcttcacac ttttggactc ttggacttat atcagtgatt tgccatgggc tctggcgttc 2160
ggccacagac tgaaggctac aatattggct tccctccttt tgagggtgtg ggacttggac 2220
tggcttctct gcttgagac ctattgtggg acttcacctt gtaattttgt aagtcaatac 2280
tctttaataa actcccttc atat 2304

```

&lt;210&gt; 457

&lt;211&gt; 643

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 457

```

gactccgtct ccaaaacaaa aaaacaatat acaatagggc taatatgttt ttaaacttaa 60
tatgaatggg atcatactgt acaattgggt ttgtagtttg cttttgtcac tcaatattat 120
gttgatgaga tttattgggc tgcattttaa agcagttttc ttagcacaga ggccctgttt 180
gcttgccaaa ctgcatgtct gctgggttgc gtctgtcttt aaagggtgac ttcctctaata 240
taatccactg ggttgagggg taagttgaac ctgttttttc tgttcacaag tgtggataca 300
agctaaagggt ggccctgtgt ggttcctca ctacaacccat ggtatagtag tccattgtag 360
aaatatacca cagttctatt gatggacctg ttgggttatt ctatatgttt tgctgttaaa 420
agtcatactt cactgaacat tcttgactt gcactcttgc gcacacctgg aatattacat 480
aaaagtggag ttgccagggt gcataacca aattgcttaa caggctgggt gtagtggctc 540
acacotgtag tcccagcatt ttgggaggct ggggcaggca gatcatttga ggtcaggagt 600
tggagaccag cctggccaat atgggtgaac cccgtctcta ctt 643

```

&lt;210&gt; 458

&lt;211&gt; 2205

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 458

```

ttttgtaaaa aaaaaatggg tagtgatat tttgcaggtt taagacaact caggacaata 60
aaaacaatgg actttacatg tgtatatata tagctctctt aggcaccata atcagtatga 120
gccacaata tttaaacttg attcaggcca cattcagaca tttgctctta tatacaata 180
tttaaatata atacaatctg aaatgtgttc tgttacatac aaaaaaggaa aaactataca 240
acgcagagca gtgtgtgtgt tttaaataat tacatttaca tgtaagctaa atggaaccag 300
caatgggtgct caagttttta tcatcccttc cagaaaatct ttttctacca tctcttctat 360
tttttgctcg gctttgctgg aacatgggtt gtggttctcc agtttcatgt ccttattagg 420
gaaggcattt gagtagagga taggactccc tgagtgtcct ccacatcggc ttgtgacttt 480
gctgttgaag acttgactga gcacattgaa gaacggcagg agctgctcca tactgcgcac 540
gggtcagatg gtgagcagca agtgccctgg ctccaacccc aatgttctcc ctgagttgtc 600
ttcctctgga tttttctttg ctcttttccg aagaagtttt gctagtcgta ccacgtaagg 660
tttaaatctt cgttgatgta taccctgcct tctgacttcc aaacctgaat catctgaggc 720
ttctggaata aaggcccatc ggtacatctg aaactgagga aggttttcag agggcaatgc 780
gagagcctaaa tccaaaaatt tgcaagcaga gagatagagg ttttaaccacc gctggctgtt 840
atatgaagta gagaagccat tacctcctgt gtacgttgtc tccagaccag ccacagaggg 900
ccctgaagtc cgtgaaatat ctccatcagc agtgagttcc tgctccatca gtaaaaaatac 960
ttgtacaagt tctgtaatac tggtaggcca ggtgagggta agatgttggg gagacattct 1020
taaaagtaac actctgaaaa acaggaacac ttgagaatgg agagtgggca cctgtggcaa 1080
acggagactc tcaaccaatc tctcttctgt atctggaaga tatttctggt actggtcaat 1140
ttcactgcta aaaatagcaa atgctaactt tttagaagc atagctctct gttctagctc 1200
cacatcacgg tttgcaaaga gattaagtga actgctttga gccactgcta cactgagcat 1260
caaactctta aatgttgttt tatcatgtgt catcagattg tccataattg ctctccaatg 1320
attaacacaa gaggcattcca tctgaaagaa actgggatcc ataaagaggt caaaagcttc 1380
ttttttccaa gctctcctgt tgtactgata cccactaaga ctgctgagca gctggacaca 1440
agctcgataa ctaggggcat tatgtgcact gtgatttctg aggtagggca caacataatg 1500
cataatattt acaagtaaag gaataaccct ctccttttca tcaactataga aaacccatc 1560
caaaagatga gccaaaacct cagagagtaa tgtcaatgca tggacactat atacagaagg 1620
agttatgttt gcggtttcca ttgcagggtg taacatatct tcaacatcag attccaaatt 1680
ggttccatct accattattt tgggagaagg cttaacttca agatttctgc gcagccatgt 1740
tgtctgttcc agagaagaac cagcaattgc accaattgca tccactattt tgtgagttac 1800
atcctgaagg tctctttggt cttttttatt ttccaaacta gggtttttca taataaactc 1860
attcagaacc ccaagtataa gaaactgccc tggagctgga agactcagtt gtatagagtc 1920
tntcagaagt atcaacagtg acgcccagct atccactaaa ttggggcactg gaattctttg 1980
aatataagca tagaaaaact gaagcatgca gacttccaaa gaaagatgtt tcttgcctt 2040
ggctatggct ggtggctgct ttaaaacttc ttttacagtc tggataacag tttctgctct 2100
catgacactg attgaacgaa ccaattccac taataaaagc tgttcttcac tggctgcagg 2160
aatgaccttg gtcctggtgg ttgttttatt ctgtcttctt agaaa 2205

```

&lt;210&gt; 459

&lt;211&gt; 1251

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 459

```

gtttcccttg gcctggaggg cagttctgca cagagccagt ggcggggcag ttgcagtggc 60
tactgcatct cattcattgt tgtcagcaag aattcagcga ttaagagaga tggcagttgg 120
ttctaaattt aagttctaag cgtttgtccg ctttaggaat tgtggaatca aagcagctctg 180
cctcttcact ctttaatttt ataataatgt gatttaact gccacaacac tatctgaatg 240
ctgcattttg ttggtttgac aatttacatc attatataca gtctcatcat accactatta 300
ttttgcagtt ttgtgtgcga caactgcttg aagaaaactg gcagacctcg aaaagaaaac 360
aaattcagtg ctaagagtaa gtttcgggaa gctttctgtt tcctggactg cacatttttag 420
aaacttgtag aaattgtccc ccattgttct ttggttcttc tcaacacatg gttctgaggt 480
tcggttgtca aagattttcg ttagtttttt cccagctact ttgtattttt cttgtctcat 540
ccttaaggag agccaggcca gtcagaggg taagaatgca agaattgtct tcaggggctt 600
cactgagaat aggcagcaca cctgtgagtc cctgaagtct gtgcttctca gaatggcat 660
ctcagccacg gggctgctga gcacagagct cagagcagga ctgcagcct tgggctgtgg 720
atcttcacat agtgtaaaac atctcagtc acccttaaag ggaatatatt gcctgattgt 780
tatatgaaag tcagcattta tgatcagcgc atgtttttaga tgaaagggtta gatgtgcagt 840
aaactttgta aattctgaga aaatttatca acagattatt ctcaagtggg ttagacctaa 900
gacccctcac ccctcgtgcg tgcagtgtgt gtgtaatgtt ggccagcact ctctaaccct 960
gggcccctat tgggctgccc tgggtctgtc ccgtgggtgc tggcttctgc tacagtgggg 1020
tatgagccat ggccctctggg aaccagccac caccacagga gcggtaggag cctggcctgc 1080

```

```

atgtggactt ggctggacat gttactgcag ctggtggtgc ctgtgcagaa atagaaggaa 1140
caacctgtta ctgctagaag taactttgca tgagtagact ttcttttttt tttaatttga 1200
gacattctcg ctctgcactc cagcctgggc agcagagcaa gactccatct c 1251

```

&lt;210&gt; 460

&lt;211&gt; 2243

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 460

```

gacatgtttt gtggtctaac acataacgta tcatgggaaa tatttcatat tcaactcaagg 60
agaacgtatg ttctgtctgt gttgggtgga atgttttcta tgtgtcagtt aggtccattt 120
ggcctaaagt atcgttcaag tccgatgttt ccgtattcat ttgttgcctg gatgaactgt 180
ctattgttgt aaatgaggca ttactgtaaa taggctatta ttatatgtct gtctgtctct 240
cgattcagat ctattaatag ttgtctgtat tattcaggta gtcttatctc gatgcataat 300
atttaaaatt gttataacct cttgatggat tgaccccttt ataatttttt ttatgccag 360
ctaattttta tttatttatt tatttattta ttttttagta tttattgato attcttgggt 420
gtttctcggg gagggggatg tggcagggtc ataggataat agtggagaga aggtcaccag 480
ataaacacgt gaacaaaggc ctctgttttt cctaggcaga ggtccctgag gccttccaca 540
gtgtccctgg gtacttgaga ttaggagtg gtgatgactc ttaacgagca tgctgccttc 600
aagcatctgt ttaacaaagc acatcttgca ccacccttaa tccatttaac cctgagttga 660
cacagcacat gtttcagaga gcacggggtt gggggtaagg ttatagatta acagcatccc 720
aaggcagaag aatttttctt agtacagaac aaaaatggag tctcctatgt ctacttcttt 780
ctacacagac acagtaacaa tctgatctct ctttcttttc cccacatttc ccccttttct 840
tttcgacaaa gccgccatcg tcatcatggc ccgttctcga tggtegtctgt ctcttcggag 900
ctgttgggta cactccccag atggggcggc tgggcagagg cgcttctcac tcccagacg 960
gggcggccgg gcagaggcgc tcctcacatc ccagatgatg ggtggcgtgg cagaggcgct 1020
cctcacttcc cagatgatgg gtgggcgggc agagggtgctc ctacgttccc agacggggct 1080
gccagtcaga ggcgtcctt gcctccaga cagggtggcg gccgggcaga ggtgctctc 1140
acatcccaga cggggcgccc gggcagaggc gctcctcact tcccagacgg ggtggccagg 1200
cagaggcgct cctcacttcc catttggggc ggctgggcag agacgctcct cagttcctag 1260
atggggtggc ggcggggcag aggtgtcct cacttcccag acagggcggc caggcagagg 1320
cgctgtctac tcccatttg gggcagccgg cagaggcgct cctcacttcc cattcgggca 1380
gccaggcaga ggcactctc acttctctcc agacgggggt gccgggcaga ggcgtactc 1440
acttcccaga cggggcgccc gggcagaggc gctcctcaca tcccagacga tgggcggcca 1500
ggcagagacg ctctcactt cctagatggg gtgatggcg ggcagaggcg ctcttactt 1560
ccagacgggg cagccgggca gaggggctcc tcacatccca gacgatggg agccaggcag 1620
agacgtgct cacttactag acgggggtgg aggcgggcag aagctgtaat cttagcactt 1680
tgggagccca gggcaggtgg ctgggaggtg gaggtttagt cgagccgaga tcacgccact 1740
gcactccagc ctgggcaaca ttgagcattg agtgagtga actccgtctg caatcccagc 1800
acctcgggag gccgaggggg cggatcactc agggccggga gctggagacc agcccggtca 1860
acgcggcgag gcccggtctc caccaaaat acagaaatcg gtcagtagtg gcggtgtgtg 1920
cctggaatcc caggcgctcg gcgggccaag gcaggagaat cacgggagcc cggggcaggg 1980
aggttgcagc aagccgagat catggcagta cagtcaggc ttggcaagag agggagaccg 2040
tagaaagaaa ggggagaggg agagggagag gcgacccctt tataattata taacgacctt 2100
tgtctcatga ggcagcttat tactttcatt ctctcttctt tttttggtat agccactcat 2160
gccttctttt ggttttgatt tgcctggagt atctttttcc atccctgcac tccagcctgg 2220
gcgacagagc gagactccgc ccc 2243

```

&lt;210&gt; 461

&lt;211&gt; 2159

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 461

```

attcattgac ccctcccatc catgctggga ccctcctggc ccaccaaggc ccaggcacca 60
ctgtgaatat tctcctctga accactagag ggcaggccag gcaggccagg cgggcccgtg 120
cagcttgttg gcaagaagga gctggcaagg accggcgctg ctggagactg acccagccct 180
ctggctgagg acatgcagca gctcctaaat gtagagatgc ctgtggctga gggggcctct 240
ctacctgtgt cccactcac tccaggagca ctggcttttg tcacgtctta gcagcggggc 300
cttgtctcgt tgttcccttg ccctgggtgt gggggggcca gaccgcctcc ggaatcctgc 360
cacctgtgac tgtctgactg cttagtgtt cagctgtccc ttcttgtgt cctgggggac 420
ctgctggcgg cctcttctg ggagccatga cctcagacct caccacact ccagatcgag 480
acccctgcct ccccccggca aatgtcctcc cgctgccttg cagcctgcac tttgcacatg 540

```

```

ctcaccceca gacacagtcct actggcccct cacctcccct tccctgagct ccttcccacg 600
gactcctcgt cactgcctgc tgtgcagtc gaggcccagg gtccagcagc cggcggggaa 660
cgggtgctgc ctcttctctc agttagctcc agctcaggtc tgagaccctg gctgagaaag 720
gtctgagcac cgaccgtgcc ctctgcccag ggctgggtcc tgagcagctg gttttcctgc 780
aggaaggttg gagcaagcaa agtccttctc tgccctcagg gtccagctgc aagactgggg 840
cggatgccag agaggcagggt gggctgtggc tggactgggtc cggagctggc ttccttacc 900
gaaaagcctc agccttctctc tggagcctc cccgttctct ggcaaggggg aagggtcct 960
ttaaggggtg tgctttccca gtggggagca gtctggccct gccctact aaagcctctg 1020
ctctcagcac tttcccccac gtcttcttaa ctgtctgaa ggtgggttct ggtgccag 1080
cagtcctctg acaaacctct ctgccccttt taaatttcac tcattttgta taaaccagc 1140
aggctggtgt ttacttagcc ctgtagcttt tttcattttt tctttcctgc tttcttctg 1200
agttcacggt tcaatattgc ctctcgcctc tgggtagggg aggtgctgct tttctgccc 1260
acctgcgggc tggttccagc agcgtcgggg ccagctggg gggcgggat gggggcttct 1320
ctctctggga ggggtgcagg tgccctccca ggctgggagg gttcttccca gcttcccac 1380
tgccccgtg gtgagagttg ggcttcttgg tcttggaaact ccctggcatt gggaacagag 1440
catttccagc attgtgtgtt gttgttttac tccactaacc cttagaaat gaatgttag 1500
aggctcctgc caggcgggga cagagtgttt gctcgcgtg gagaaggctc tgctcagccc 1560
tgagagtccc ttcctgcccc accgatactg gcactttaaa aaggaagctg accgcacagt 1620
gtccagacga attggcccc agaagatggg gagggtgcat tcagggtaga tttgctctc attcaaagt 1740
gacctcacc agcctaggag ggaggtgcat tggcgctgtt ggggagactc ctccagacca 1800
ctggggcttt gggcgaaaaa cagccagctt tggcgctgtt ggggagactc ctccagacca 1860
ggaacccagc aaggagacag agcctgccac atcctccac gccaggccct gggccagggt 1920
gattggactg agaatttggc cacaacaaaa ctgtagctgg ctggaaaccag aggcacagaa 1980
gcctggcctt gtcccatgtt gggagccctg tctcagccc tctgtcccc ttgagctcag 1980
tgaattccca ccaggtgccc acagctcctg gacttcaaat tctatatatt gagagagttg 2040
gagagtatat cagagatatt tttggaaagg agttggtcta tgcaatgtca gtttggaaac 2100
ttcttgaaaag tttaatgttt ttattaggag atttaaagaa aataaaggct tacaatatc 2159

```

&lt;210&gt; 462

&lt;211&gt; 2207

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 462

```

ttttttccag cagtcactgc gcctgcagtc ggcgacagtt taatgtgagg caattaccgc 60
tacagacatc ttgcttcac ttaaaaaaat aaagcatctc acaggccaaa 120
gagctaagca ggacctcac tcagacattc aagagtgttt ccgaggaaaa ctgaggagg 180
aggcagcgtg gaacatcttc ccatggccac ggccccggca cagagctcag atgcctgcgg 240
gaagcggccc ctccacctgc ggaagggaag acgatgcctg ttggagccgc acggaagcat 300
ccagaactct gaggcctggg ggccggctgc ggtcagtgca aggctgctga catggtgtga 360
cctcttgcaa cggggtgggg gcagagcgtg cggtgacaag ggtcagactg gcggctccca 420
ctgcagccag aagtgaggga gccagcacac ggggggtggg agtgagacag acaggatgag 480
gcaggcccca gtacccccca ctcaggaatt tgcctcaggc caaaagccca gggcagcagg 540
gtaaggcgcc atcgccagg acctgcacgg caggggcagc cccctccact ccctggacc 600
gagaccgtct ctctcctgga agatggacat caaaactgca tccggagggt cagctgcac 660
ccagaaggaa ggggatctcc gccagcagag ccaagagtg gcgtgcagac tgcatgtgca 720
cagcctcagc cgggccccct cagccattgc ccatgagggc ctccacgttg tctgatggc 780
gctggcatct gccacgtccc caaggactcg aggagaacca gaggctgaca agagcagcat 840
gagctagccc tggcgatgct cagccggggt ggacacagcg gatccacaag gcgttcaggc 900
ctcgcagcca ctccaaaggc ccaggaaaca ccgactgtca gaaaaccgg agcacgggtga 960
ccctgcgtcc gcacagccgc ctttccgtgt gtaccaggca gagaaagccc cagccctccc 1020
ccgtgccaga cccctgggta gcagaggcca cccagttcca agcagggtgt ctggccaggg 1080
tgtcacgggg tcgagggtc cgctcacagg ccttacaggg tctcctgcgg tcacccagc 1140
ttcaagggtc gcggctgctg gcccggtgtg ccacctggag caggttcctg caggccggcc 1200
aatgtgtacc ttgggtctag acggtgtttc ataagaggaa atggggaaaa cacttgcttt 1260
ttatgtcatc taaaaacat ccaaaacct cggggccaga tcaacctgg ctgtccccg 1320
tgagcacaaa cagcgtccca gcccacccc cactgccac cctgagacac cccacagagg 1380
ctgatggaga ccccaatgcc catgccccat ctctgccaca cctgcagggg ccacggcacc 1440
caccctcccc gcggggagggt cagggccacc cagtgcctgc ggctggcggt cccacatcct 1500
cgtcctcccc actgtcagag ggccttgggt ccagtggggt gcacggcgtg gggcgccggc 1560
ttctgggggt gggggcgaa ggcgtaggcc tgcccagga tggccaggtc caccagcacc 1620
tgacgagggc cgcacacgga gaactgcaga ggggcacct tcagcaggaa gtaggccgtc 1680
ttgaaggcgt caccactggt ccacatgagc accatcttga tgctcatgcc ctccgtggac 1740
tgggtggcgtt ggttgcggtg aagctgggca caccagcat ggcttcggtc agcacagcca 1800

```

```

ggaagcccg ggtctccaca aacagggcgg agtcaatgga caggtagggtg atgtagcccc 1860
ccacgcccgt gaaggccagg acgcactgca cgtagtccga gaagctgctc cactgccaga 1920
agtgtgtggg gtcgaagtct gtaaaggagc ggcgcctggc gttgagctcg ttggccacac 1980
ggacctcggt gcacagcttc agcatcagca gcatggtcag gatcatgatg gcgctctgcc 2040
acagcagcgg ggaactcaaag cgccttccaa accagaagag tatccgcaaa atgttgccca 2100
ccagcagcac caggcacacg taggtggaga agccgtcggc gttctgcgtc ctgcgaatgt 2160
cccgatactg cgggacgtag ggcaccaccc ctccgaagac catggcc 2207

```

<210> 463

<211> 1603

<212> DNA

<213> Homo sapiens

<400> 463

```

tttttttcaa agaagatggt aaaaccctaa cgggaaaaat gaagtgaata atgaatgaga 60
tataacttct tccatccaac taaaaactat agtgaagaca ttatttctta aattaatata 120
tgcatttatt ataatagtaa ctagtgccta tattagttaa gatataattt tgcctttaat 180
taaccattcc ttaacaagg cagaagctta ttctctatc atagaccagt ccagaagtag 240
agtggcagct ctctgcccta tgggattgtc ccagggggcc cagctccttc tcttgttgtt 300
ccaccatcct tgaagtaagt cctctctgtg tgggtccagag tggcagatca tgggtccatat 360
ttcagtcagg aagcagaggg gatacaggag aagccagagt atgccaggg aagcaccttg 420
agaattgcac aggatgcttc tgctcatatc ccattggcta aaacttagtc ttgagtccta 480
gctccaaggg agactgggaa atgtagtctt cattctggga ggtaactatgc cccactaaaa 540
atccagagct gtattaagtt gagttagggg aaagcgaata tgggggagac ggaccaatcc 600
ctactacagt actattggaa tattatttag aacttgaaaa ttgctaataa aattatttca 660
aaagaataaa taggcaggca cacaacatat tttttaagaa aagtgttttt aaattgccat 720
attctctctt tttctttttt tttttttgat gtaacacttc tgcttttaat gtaactttct 780
ttttaaaact ttttattata taaattttta ccatacacag aagtggggag aattgtgtag 840
tgagccctag acccatctcc cagggttagt aagttatcag cttaaagtta gttttatcta 900
ttctccctgg cctccaactt atccccctcc tgagttcttg aagcagatct cttttttgct 960
atttgatctg tagatatttc tgtatgtagc tctaaaagg aaagggtcct ttttaaaaaa 1020
aataaacttt aaagttagg ataattgtat tcacatgagg ttgtaaaaca taatctggag 1080
agattttgtg tatgctttac tcattttccc ccatgatagc atcctgcaaa actatagtac 1140
catatcacag ctggaatctg acatggatac agtcaagatg tagaacatct ccatcctcac 1200
aagagtcctt cgtgttgccc ttttatagcc atatctacct atctacctcc cttccacaa 1260
cccctgacac tctactagtct gttctccctt tctataattt tgtcatttta agaattgtta 1320
aaatcagccg ggtgcagtgg ctcatgcatg taatcccagc actttgggag gccgaggcag 1380
gtgaatcacg aggtcaggag ttcgacacca gcctgactaa cagggtgaaa ccctgtctct 1440
actaaaaata caaaaattag cctggcatgg tgcatgcgcc tgtaatccca gccactcagg 1500
aggctaaggc aggacagtca ctccgaaccca ggaggcagag gttgcagtga gctgagatca 1560
cgccactgca ctccagcctg ggcaacagag caagctccgt ctc 1603

```

<210> 464

<211> 231

<212> DNA

<213> Homo sapiens

<400> 464

```

ggagaagatt aacaaagtc tttcttgaaa ctaaatacat aatacacact atgagatgaa 60
gacgatatag aagtccgcat agtcatcata atcccgttcc ttggccggtt gaggcagctc 120
agtggctgag ccagtcagg ccagcccgca gcttactca cgacttcaag atttgatgct 180
aattcttttg ggattttctac cgttatgaaa taagtgtctg agccttagaa a 231

```

<210> 465

<211> 1177

<212> DNA

<213> Homo sapiens

<400> 465

```

atgatttact agaaataatg gcttcttgct caatttctact atgtgcatag tgcctctttt 60
gaggctctgt tgtatattct atttatggaa gttaaaaaagt atttcagaaa tgcataatatt 120
aatctgtgtg gaatttctct tatccttttt cctctctaat tcttgcttgg atatttgtct 180
caagagatgg tccaacattt aaaatagcga ataatactt agcccatcca aaaacaatcc 240
ttcctaaaagg tttatgaact taataacaga gcctcaaaat acatgaggac tcatagaact 300

```

```

ccaaggagaa acagacacat ccttaacaat attgtagact tcaacactct tctcacagta 360
atcaagagaa caactagaaa gaaagtgcag ttttccctgt tttttagtag atgaaaacta 420
tttcacacac ttctgaaagt ctcatcagat aagttactca tttctccacc ttatgactgt 480
actgtgcttt caaagtgcgt cacaagaat aaaaagtttt aaagtggctt tactgtaatt 540
tcagataaat atttgaactt ttgagtctga attatccagg tgaatgcat tggatttctg 600
atcctctgta acttggaaga ttaccgtctt ccaggatat tggttgtcct taactgcctt 660
aatggcatga gttgtgaatc ttctctgtct cggaagaaac ctaacagtgg aaattgttta 720
tggcaagggt cacaatttta catgcgcaga aggtcaggac cctctgtaag gtaaaaggcat 780
gaagtgcccc cttcttttatt aacacataac tgcatttgct gataatattt atttgcttag 840
aattcaggcc ctttttgctt ttacagacag tgctgtctta aatatgctag agatgtatct 900
ttagtcactt aagctgggtt ttctgtaggg taggttccta ggagtgggat tggattgttg 960
ggttacagtg tgtgctatatt aaaagactga accagattat actctcagca tctgtttgtt 1020
tttaaacctt ccttagtctg tgcttatgtg tttgtttgct ttgtttgttt tttgtttgtt 1080
tgtttgtttt ttgagatgga gtctccctct gtcacccagg cgagatcacg ccactgcacc 1140
ccagcctggg aagcggagca agactccatc tcaaaag 1177

```

&lt;210&gt; 466

&lt;211&gt; 2093

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 466

```

catgaaatc ttacattaat cctaaccctg ctgtaatttc atggctaattg tgtaatcgaa 60
tgttttctac tactgggcag ctgtttggct gttaatcttt gttttttttg tttgtttgtt 120
tgttttgttt gttttaatgt ccataaaaca cccttcttgc ttcatggag cagagcttca 180
aatctaaatt tgggtttctt tgcccatttt taaataatgc ttacaaaaga atggccttta 240
ataatgttaa gtgactttac ctccagtggg gatcgaaaga aaattagtaa tattcaatcc 300
attcttagta ccttggtgta tgaacacgca tgctgttttc acctataatt acgactaaac 360
aggaagttaa taccttgta gtgatgcagt gagatactgt gcagtgccta ctgttaatcc 420
ttaagataaa aaaggatttc tcagaagaaa tttcaaatta aaatgtgttt taaagggact 480
atltggagtt ttgtgaaatt gttcatatct ttttgccaag catccttctc ttgaaataac 540
catgtttctg aagtttggtg ttccctgcct tgatattcgc atctacatat tttatacaga 600
catttcataa cattaaagtt aataaaactt tatagtaaac cagatcttta tatgaacagt 660
tacagtagtt actgtctgcc tgatggacag ctaattgcac tgcacttcga cctctattgt 720
tggttcgcac cttgtattt ttctagggtg gttgtaaagt cttcttgagg atgattctta 780
aaatttctta aggcacttac tccctttgtt tccacactca ttttatcatc tcttccagtc 840
cccaaagcag tgttttgtgt tgctcagtat aggtttttga ggcaagggct gtttttataa 900
tgctgattca cagtcataca aatcttgtct tttgagtcac gtaaatcttg tcttttagttc 960
tgaaagaaat agactctcaa atagaatata agaaattaac ctttagtaat ggcataagct 1020
tttagttttc cggaaagtgc tgagaggaaa tgatctata ctactgcgtt ctgtcctctg 1080
tatgaccttt gtgtgatgac gtgcaaaata gatggtagag attgggataa caaatgattt 1140
gtggaacatc gtgtgataa ttctactgtc ttaaaggtag aatccatgaa cttggccttg 1200
cccatatata ggcttttgaa ttttgacaag ccttgggggg atgaaaccta gaataagtta 1260
tttatggcgt tacgctttaa tagggttgac acttaaaacc ttgttttcat aaatgctacc 1320
ttttggttat gttgatctga tgaacagata ctggctgtca ttgaaagaaa gtttaaccgaa 1380
tgttcagata cttattgggc ncttggaaca tggctgctct gtacttcat gaatattcat 1440
aatattcata aatatttgtg aataaatatt tttagtattt ccaatttata agctctttga 1500
aaggagggaa tttttttttt ttttttttga ggcggagtct tggtcagctg cccaggctag 1560
agtgcagtgg cgcaactgcg gcttactgca accaccgtct cctgggttca agcaattctc 1620
ctgtctcagc ctctcgagta gctgggatta caggcacccg ccatcatgcc cggctaattt 1680
ttatatttta gtagagatgg gatttcacga tgttgccag gctggctctg aattcctgac 1740
ctcagggtgat ccgcctgcct tggcttccca aagtgcagg attacaagcg tgagccacca 1800
cgcccagcaa gggaggggac attcttatgt ttctcctagc atctttcagg tctttaatgt 1860
tttcaatncc ttggcctact gttctttgta gcctgtggtt ggtcaccact gctagtacca 1920
cttatcattg aatgaggaag atagagaata gagaagcaga aagcatagtt taacatctcc 1980
aacaatcaac tgttaaatcc catatcccat agtgactaca gtaaaaggtc tctcaagat 2040
aaaccatttg caggctttgt attaaaaatc tcatgtaagg aatgtttcag aat 2093

```

&lt;210&gt; 467

&lt;211&gt; 1569

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 467

```

gttaaagtgg tgtcctgccc cagattgccca ccatgttggt aaagtccaat atcctgatgc 60
taaacctgtt cgctgcaaat gtggcgccca attttgcttt aactgtggag aaaattggca 120
tgatcctgtt aaatgtaagt gggttaaagaa atggattaaa aagtgtgatg atgacagtga 180
aacctccaat tggattgcag ccaacacaaa ggaatgtccc aaatgccatg tcacaattga 240
gaaggatggt gggtgtaatc acatggctctg tcgtaaccag aattgtaaag cagagttttg 300
ctgggtgtgt cttggcccat gggaaccaca tggatctgcc tggtaacaact gtaaccgcta 360
taatgaggat gatgcaaagg cagcaagaga tgcacaggag cgatctaggg cagccctgca 420
gagggtacctg ttctactgta atcgctatat gaaccacatg cagagcctgc gctttgagca 480
caaactatat gctcaggtga aacagaaaat ggaggagatg cagcagcaca acatgtcctg 540
gattgaggtg cagttcctga agaaggcagt tgatgtcctc tgccagtgtc gtgccacact 600
catgtacact tatgtctctg ctttctacct caaaaagaat aaccagtcca ttatctttga 660
gaataaccaa gcagatctag ggaatgccac agagggtgctc tcgggctacc ttgaacgaga 720
tatttcccaa gattctctgc aggatataaa gcagaaagta caagacaagt acagatactg 780
tgagagtcca cgaagggttt tgttacagca tgtgcatgaa ggctatgaaa aagatctgtg 840
ggaggtacatt gaggactgag aatggccctg cataaaatga actctgaaaa ctttaccatc 900
tagagtgtctc atgcaattaa aacaaaacaa acacaaacaa ggaggcacta agcctattct 960
gacaccactg gtctgtagta ccagaattgt tttgttaatg gaaagttaa gtaaatata 1020
ttgtaataaa aaggtagata aaccattgta caacagtatt ctaggccgcc aacaaaagt 1080
tgacagacac actaaaagcc ctccaacttt aacttgtaac gtacttcat tctcaaagct 1140
gactcctttt ttttctttt cttttcctg agtgtagtac agttaaaatt tcaaacagct 1200
ccttgacact gcttttcatg ttcaaaccag ccattttgtt gtactttggg aaaggacctc 1260
ttccctcttc tccctacac atacagatac acccacacac agactgactc tcttctctc 1320
ataccccaag gtcatgagtg aatgatgctt agttccttgt aaagaaaatc ttgggatggg 1380
gaaaggggta ggcagcaaga ggattcaaca aacgaaaaac ataaaaactt tgtatatgac 1440
ttttaaaca agaggacaac acagtatttt tcaaaattgt atatagcgca tatgcatgga 1500
caaagcaagc gtggcacgtg tttgcataat gtttaattac aaaaaatat ttattcttta 1560
aaaatcttc

```

&lt;210&gt; 468

&lt;211&gt; 1047

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 468

```

gtgagagaga gttagttcaa gccaaaatgg cgcacagagt ctctgctggt ttctgaatat 60
ttaaataaca aaaaaacaga tagacaaaa gaattcattt tttggacctt ttttcatttc 120
catttctacc ttgtatgcct caatttgctg gatttaagca ctgctgcact ttattgaggt 180
tggtaaatat tttcaatttt tttaaaccaa ttgatttata tggatcttgt ctaaccgttt 240
tcactgggtg tgttgcaaat cgacatttgt ctagcatgga gactggcttc agacatttcg 300
tggatctgtg taaatcagac ccgtgatgta ctttggttcg gcattttaga aatggaaaag 360
acgtggtaaa atatttagat tttgaagtga ttttaattgca cttttaatgt atatgcagat 420
tttcatcatc gtttctatct tgcaataaat gaagctgcga gtaattggaa atttgctatt 480
tagaaagagg tttttaaaaa acacagacct cccctcccc ccttaaactc gctgcaaaaa 540
tttgcataaa tataaatggg tttgcattct ttcggtgctt aaggccgaca aaggatctgg 600
gagggcaagc cctagaacgg gaaagccttt ttctatcttt ttatttttta aactgggccc 660
tccttcctag agagatgtaa aacctaaagt aagacctaat acatttttaa catcaggttg 720
ggggcggggtg aacaccagga ggtttggggt ttgtagattc ccctgcttga aaacctccca 780
agcaatatgt ggctcacccc tctcctttct gcgcgcgtc atttgactg ggtctctgtg 840
tgtgttctca aatgtgcagc cagatgcgct tttattttga tcctggattc aaccaaaggg 900
taggactatg ttgtaaacat ggtgttttaa agatatgaac agctattcac cgcgattaga 960
aattatttct ttatcagttc tcctgtgta ttagccttct tccatctcct cacgaaataa 1020
aatttttggt taattttaca cagatgc

```

&lt;210&gt; 469

&lt;211&gt; 1413

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 469

```

attgtgagca attccatcct ccacagcag cattggatgc aggcgatcag tcctctctcg 60
atgcttcctt aaagaccctt ggcttctagg agtttcttct ctcttagtcc tcctactgca 120
gtgcctgctt ctgctccaac tccttggtcg gcttctcat ctctcacct gtaaatattg 180
gagagccctc agctgaaaac catggacccc ttctctcctt tgtctaaact caccaccata 240
gtagtctcca aactcctggc tttatgtact atccatatgc tgacaactcc tgcacttaca 300

```



```

tccccacccc agtccctctct cccattttcc agactccgta ctcagcatct cctatggatg 360
tcaaataggc atctcaaaaca tgggtccctcc cacagtcttg tcatctccaa gcaggataac 420
tctttcttcc agatgttcat tctaattgct tggagtcacc cttagcgccct cactttttcc 480
atccagtccta tcagtgaatc tgtcagcttc gccgcttcca cagatccaaa tccctggcat 540
tctctcttgc ttgtattatt gcaattgcct ccaaactggt ctcctctgtt tggcttttgc 600
tttctttagt tctcttctca tcagaatagt tggagatcct ttcaaagtgt aaggcagatg 660
gaatcactcc actgctcaaa atgccccaac gttctctgtg ttacaaagtt aaatctaaag 720
ccttctctgc tctaggtgt tcccttgcta cctctctgaa tctgtttcct agcatgtact 780
cttgcccatt cagctgaagc cacatggtct attctttgtt ccttgaatac actacacacg 840
ccattgacct gggcctttgt gcttgcctct ccaggaaggc tcttcacaca gctatccaca 900
gagctctccc tccctgactc attcattacc tttatctaat ctttccatgc aaaataggaa 960
tcccttccca ccttccctg cctttttttc caaaacgctt actataactg tccctctccc 1020
tagaatataa actgcatgag gtcaaaaatc tttgtatttt ttttttctct gctatatccc 1080
caaggctaga aaaatgtctg acacatagta gatgttaaaa gaatgaatga ctggccagg 1140
cgcggtgctc acgctgttaa tcccagcact ttgggaggcc gaggtgggca gatcacaagg 1200
tcaggagatg gagaccatcc cggctcacac ggtgaaaccc cgtctctacc aaaaatacaa 1260
aaaattagcc aggcgtggtg gcgtgtgcct gtagtcccag ctactctgga ggctgagtca 1320
ggagaatcgc ttgaacccgg tggaggaggt ttgcagttag ccaagatcgc ggcaactgnac 1380
tccagtctgg gcaacagagc gagactgtgt ctc
<210> 470
<211> 955
<212> DNA
<213> Homo sapiens

```

```

<400> 470
ggcaaagagg atactttagt tttgatatta tcaatacaaa gatatgtaga taaaagatgt 60
cctaaaatct cgagctaata tctatgaagg gttttttggc tcctttaatg ccttgtgggt 120
tttttagctt aagaagtaag aacaatcatg cttacttttg gggcagttag actcttttaa 180
ttacaacttt tgagaagtaa cactgggaaa atgtctttca tggtttgaga agtcctagtc 240
catgtgttca atttctatgc ctctctttt gaaagtctta ctggggtttt ttccctggt 300
ttttacctgt gcattctacc tgcagacaca tgtcaggaaa gagttgcaca gggtttgagt 360
tagggtggta catatggtat aaaccagggt gggccctgtg gaatccctag ggccaaggca 420
aacagggaatc ccggtactgg agtatggctg tcaaaagtgt atatacacca gtttcatgtc 480
tttgcgtgct ttaattcaga ggcagcccag gtccccctgc ctatttctat cctgactttt 540
cagtaactgt aaatttggat ttaaaaagca ctggccagt ttggaaggctg aggtaggagg 600
atcacttgag tccaggagt ttgagccatc ctgggcaaaa tagcaagacc gcacctttaa 660
aaaaaaaaaa gcagccagggt gcggcggctc atgcctgtgg tcccagcact ttgggaggcc 720
gaggcgggca gatcacaagg tcagaagatt gagaccatcc tttctaacat ggtgaaaccc 780
tgtcactaca aaaaatccaa aaaaaattcc ccggacatgg tgccaggcac ctgtagtccc 840
agctactcgg gaggtgagg caggagaatg gcatgaaccc aggatacggg gcttccagtg 900
acccgagata gcgccactgc actctagcct ggacaacaga gcgagactct gtctc 955

```

```

<210> 471
<211> 2018
<212> DNA
<213> Homo sapiens

```

```

<400> 471
aacgtcttca agcatggagc catgaagctg gatttggctt tctgtcgtc tctctacagg 60
gtacagggtga aagggggcag acccctcatc atgctttcca ggcatctgcc acttcccagg 120
aattgtctcc ctggataaac aaggcgaagt ccctggctgt gcagaagcag tagctgtgtg 180
gtggcacagt caggaaaact ogggggccct gttggtattt totaccctg acccgtgtgc 240
atacttctgt cgtagctctc accacagtag actctgctat cattgtgtct tccatcctct 300
gaacctgtg caaggctctc tcatggtgaa tggccagtaa ggotcaccta ttgctgctat 360
ctcatcatca tatcatttct atgtgcccc ctgagtaaga gtctggactg tggttacatt 420
ctcaggaatg tctgcaaagt catatttagt tgtgaggaga gtaaaacaga gctagacata 480
atgttgcaca cagcctttgg cactggatgc ctgggtgaatg tcttgtgcaa atgggttaacg 540
tgaggagcag catttggggg gcgcaggact taactatttg tgtataacat attactgatg 600
cctgtgtgtc atactctgct actccaagtc tagtagtcaa ttgcatacca tatctcagtc 660
tggcactgag ggaagcagtc tggatggagg tacagctgga gatttgggtg aggggactta 720
tctctgacaa cagcctcttg ttgatcttcc cagacagtga caataccctc ccctcccttg 780
ggctggaccc ctctctacag ctaggagcca atggcagaag aaaaaaccaa accgagttag 840
ttggaccaag ggaagtatga tgctgatgac aacgtgaaga tcatctgcct gggagacagc 900
gcagtgggca aatccaaact catggagaga tttctcatgg atggcttcca gccacagcag 960

```

```

ctgtccacgt acgccctgac cctgtacaag cacacagcca cggtagatgg caagaccatc 1020
cttgtggact tttgggacac ggcaggccag gagcgggtcc agagcatgca tgcctcctac 1080
taccacaagg cccatgcctg catcatgcag acataaacgt gacccaaaaa agcttcaatt 1140
ttgccaagaa gttctccctg cccctgtatt tegtctcggc tgctgatggg accaatgttg 1200
tgaagctctt caatgatgca attcgattag ctgtgtctta caaacagaa cccaggact 1260
tcatggatga gatttttccag gagctcgaga acttcagctt ggagcaggaa gaggaggacg 1320
tgccagacca ggaacagagc agcagcatcg agaccccatc agaggagggt gcctctcccc 1380
acagctgagg ggctggggct aggggtgggt ggagcccttt taaaataccc ttcccttcaa 1440
caactctcca gctctgaatg gagaaactct ctaggccatc ccctcttcta cctcctgcaa 1500
cccacccatc ctattagcct cccacattca agggccgtga tacagggatg aggtcagcac 1560
cagcaaactc tggactgggt gaagaattcc ccaccagatc tccttgaagc agaattaggg 1620
atcagcatca ttaacacctt cccaccccc tccccccagg cagacagtga agagaatcag 1680
aaaacatgat tatgtgtcac ttttaatacag gaaatttagg tgttttttgg tgtttttgtt 1740
tttgttttct ttccaaagct caccctcggg acaattcctt gggcttctcc tgaggtaatt 1800
attacccccc caccacagc tgagtctgtg agggcccatc ctttccctac gttttctccc 1860
atcttttttc ctcttcaatc tcccagtcac ctggtttgtt tgtttctttg ttctgctcta 1920
ggcaggagag tcgcttgaac ctgggaggag gnnnnnnnag tgagctgaga tcgcaccatt 1980
gcactccagc ctgggtaaca agagcgaaac tccatctc 2018

```

&lt;210&gt; 472

&lt;211&gt; 1119

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 472

```

gccaggacac aagggtctcct ttccccgctc ggctggccgg atacaaatgt ccccccgaa 60
gctgcctgga agttccagct ccgagttccc tgggaggact ttttcagatg ttagggaccc 120
gctccagagc cccctctggg tcaccctggg ttccctccagc cccaccgagt cactcactgt 180
ggaccctgcc tctgaataat caggaacggg ggcttcagag acgtctcttg ggccttccct 240
ctggccacgt ctgcacccac ccctcctggg caccctccta gcctgccatc cctcacctgc 300
agccaggctc tcagggaagg tccatgctgc ttggcctgag ttcaaggctt tctgcctgta 360
gcctggactc ccgtggaccc ccgtgggcag gtggcttccc cgtggcatct ccacaccgcc 420
tctgcctgcc cctgtggact gatgctatcg cgcaccgtcc cagaccccca ccccgagctc 480
ctgaagccgg ggtctgagcc tgcacacact ctggcctctc atccccact ctctcgagag 540
cagtggctac agcggccggc cgctctgctg agaaggcaga gaggcaggct caggcctcag 600
cgtggacagc agggataagg ggcacgaagg acggggactc ggcccttca gaattcctca 660
ggactctcag gtgcagcttt gccaaaaagg aacttttcat gtcatgcagt tgaggggact 720
tagtctcaat cccaggctcc tcttgactct gggcagcttt aatcagggtg ggcagcctct 780
gctacagcgt ggaagtggat ggctctcttc cctcagccac ggcgcttgag aggacagagg 840
tgggggagtg ggaagtggga agtcaccaga gaacaggaga gggatttgag ggcgagaccc 900
cagcgtctc caccgaccag ccagaggagc tggagccagg tgtgcatggg ttcaaggccc 960
tggccctgcc cagcctctgt cttggagctc cagccccagg gttcggctgt cagcagtttc 1020
ccaagaacaa gatgtgatgg catctgctgc tgaaccctg atgaggacca ggccccctgc 1080
accgctgtca gcctgaggaa ttaaagcttt ggtgctggg 1119

```

&lt;210&gt; 473

&lt;211&gt; 2501

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 473

```

ataatactaa agggctcaga aaacagaaaa aactaaattc cagagtcatg gttttctggg 60
ggtttgtctc aatatttgaa tagaaatcct aaattatctg gaggagtaga agtccgtgaa 120
tcttttatat tgggtctctt aaatatttct gtcaacagat cttatatcag ggtgatctgc 180
atatcattca gagttacgta ctccacggga aggttgatg taaaatcctc cagctctgta 240
agccttgtaa tatctcaat ggagaagggg tcattccttt tctaagatca ctcttact 300
tttttattag acacacacac acccttcccc aaccacact gtctaagtcc tctgtctttc 360
atactcttgt ttagtcttta acttctcctt attaaccagc ttctttccca taatgtatag 420
cttttagtcg atctcaagcc tcgtttccaa cctatttcac ccttccctgc ctatcaagct 480
ctggttattc tttctccac acacatgcc tgagtaacta ttctgtgcac tgtcgccacc 540
cctttacatt tccttttact cccagatac tactaaatgg cttccaccac cgttgctcga 600
cttaagcacg tctcagaaag gtcccttttg accccctcac tctctttttg gacctccata 660
ctgctgaatc tctgacttga aggtccttct ctggctctct tgaattcctg gctttttcc 720
tttttagggg ctgtgtcttt cttccatctg taaaacagct ttacttccca gcatccatca 780

```

```

tgatcattgc tgttttctaa cttgtccttc accccatgac tgagttaatt tgcgctgaag 840
acactttact cccaattatc tacagtgttt ccctaaatct gtgtctccag gttggatgtt 900
tctcatgtcg ttaaccactg gtcacccctc cacacccctt ctgtatttgc actcactgag 960
cctatatgca tgtatcatgt ggccatgacc ttggccgtgg ggatgcaccc ataaccatca 1020
taagagaaca caaattatta ctgtgtatca gacattgttt cgaatgtttt acatgcgtca 1080
gctcttttaa cctttatgac aactccataa tgttatttcc cccctttaac tgattagaaa 1140
actgaggtac agaaagatta aggaatttgt caaagatttc acaattatga aatttgggtt 1200
tggggactgg aagccactgc actggcttca gaatccatgt ccttaaccac tttattgctt 1260
ctcataaggt gggctcttgt ttctctggta tcacttgttt ttactaaaat ggttcaaaact 1320
gtgtctcattt atttataatc tactatttct atttgacagt acatcttggc cattccttca 1380
agcaaatgag ataaaccaga ctactcttct aatgcctgca taagctattg tgactgtaga 1440
aaagacggag aatgtctggg tttgaggata tgtgggaggg gtggggagaa ggagtagaga 1500
agggctaagg catgcatgtt gttttagggt tgtttgagat gcctgaagaa catcagtgtg 1560
tccccctaatt ttctgtcatg ttactcaaac cagacacatt gtggccattt ctttttccct 1620
tatcattccc acgtccggcc actgccccat tcctttttgt tcccgtagta gacctcaat 1680
atatatgtgt gtgttggtaa atggccatac acagcagggt attttttatt attattttca 1740
gttccctcag cgcgtttacc acaaagctgt gcatataggt ggccaccat atggcgtacc 1800
ttgacctcga agagaatcta catggacttt tatggacct cgtacacaat tttagaaatc 1860
ataataaatg aatgtctggg tcctcaagac cccttcaga tttgatttgc taggaagact 1920
cacaggactc agcattttgt cactactcaat ggctatgatt taccacaccg aaagaatcca 1980
gagcaaaactc agcaaaaggg tcaaaaccaa gtccagagga aaccaggcac aatcttttag 2040
aatcttaagt aaatcacaca ggatgtgctt cattgaagct ccatctggga cttaaaacaa 2100
cacacgtgag atgtgttcca ggaagtgtgc ttgagcacc attgtcaga gtttatattg 2160
gacttgcttt ctgacacata ccacaattgt agacctccag aagaacagga ggtgttcagc 2220
gtaagacaat ttaggcacac ggagctactt ctactactg ggaacaatgg gaaacttccc 2280
aaaacctaaa gtacagactc cagcccaagg atgaacctg caaggatcaa agaatagcag 2340
tctctggcct gctctgttct ctttttcaca gttacttaaa tgggaaaatg ctgagttagc 2400
ttaagtttct gtaacaaaca ttaagcaaat aaaattttct ataacggaaa taagccctag 2460
ctttgagatg gaggtctttt ttctgtgtaa ccattgttac c 2501

```

&lt;210&gt; 474

&lt;211&gt; 2480

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 474

```

agccaattaa attttttagt ttttgaaatt tttatttata tgtatactta gatgagtatt 60
ttaagctgtc gacctttagt ttgccatacg ggtaggactg tatttcatgt taacaactgg 120
tggtaatgat aagccttctt ctagcgaatt ttctcttctt tcctgtcact ttccctaagt 180
ttttttttta aagactggaa ttttttttgg ctttatcttg tcttaccgta gagatttgtt 240
caaaactcta agccctacca cctccccttt aataagctct ttaaataagt gaatcattaa 300
caacctgggt ggaggcaagt catttaattg aaccactagg aagtgtattt tcttttcttt 360
ttccgccaac cttctggcgg cattttgaaa agccgagaca aaaggctctg agatgttatt 420
ttcagttatt ccataggcaa gcctttttac agagcatatg tctccagtcg gcagcctgag 480
acatttccga gcatccggtt ctactacca gtgcctccca atgcttagtg cacagtactg 540
tagactggcc atcaccctc tccttggaag atgccactgt gctgtttgaa aaaaagcagc 600
cttttagggc tagagtattt tatataaaca gaagagctaa gttcctgaag actaagctag 660
atagctgcag ctatatgtaa attgtatatt tttatgaact tttgaagcac acactcctgt 720
ttccctctgt gtagctttgt ggggatttca tgtatatatg ctgtctgaaa gaatccagag 780
gttggagtgc caatagaaaa tgaaaacaaa tgcctgttac tacaggcagc ctctgaagg 840
gaccacataa ctgtcttcac tgtgaccaat cggagtccct gcttgcctgt gaagaagggg 900
cttttgtacc ttgttggaag tgccacctca gaagttcaca ctgtgcagga aaaagggttt 960
attctctcct ggcatacatt agaattgtcag atgcttgcac ccatgtggac cacgatgggc 1020
ctctaaaaat tgggtggcag ggggtttgct tatgagtttt ctctggaaac cgattttact 1080
cctggatgta ttgaatgccc cttgagcttt atgagatacg agtccacatg gataaaatgt 1140
tagagagtgg agttctacag aggattccag gaagaggcca tgtctgtgca gtccatgttc 1200
cagacaggtg agaagctcca ggaactactg gctaccttga caagctgggt aaataagtta 1260
tcattctggg taactgggtg aaactctgac ttttgacaa gtaattcctg gggttcctgt 1320
tttggtagca tcaccaggga tttttgggtg ggacagacag aagacacaca gctgcctgtt 1380
ctctcctgcc catcatgttt ggccacttag atgaagctgt actcagcaat ttagggatg 1440
taacccttct cagaactggc cattttcagg ggaagcttgg gagagcaata gtatggtag 1500
ccccttagag atgagcgct actccttctt ggcgaatgct gccttcagat gcttaccag 1560
tggctactgc atctagtaag atttatattt cagtacactt ccttagggca gaaacacat 1620
cctatcaggt ttggtcagtc ccttcttcat gaaggagtc atggggaatt cctgaaaatt 1680

```

```

ttcttccttc tgcagacagt tggatgagtc ccttagagaa ggcattccaga gacataacta 1740
aactgaatat catcccatat tgattttagg aattgactct aaaactctgt gcagaatctt 1800
gtgttgggat tgtatcttga cattcctgtt gtgttatttt tcttaactgg agtgtgtgct 1860
gcctttcagg tacaattttt gtgtaataaa agccagtgc ttaagtttat atagactact 1920
ttctatgcaa gactgagata tggaaatagat aggaagagat atgtactgct gggtagatgg 1980
acagtaagtg tgttttcaga tggagtacca gcaccgaaaa tgggttgagg gaggatgggt 2040
tgtatgtatg tttctgcccc ctaattttga gcagccatat tatgaattaa atcgtcacag 2100
ccaagtaata acccaagaat ggtatgagtt tcatgtgtaa tagctcaa at ggaataagca 2160
tgaatgctgg agtggaccat tatcctcaaa tattctatgt cacttctcat ttaaagactc 2220
ttgttatgaa ctattagaaa ctttaggcaa aatcaaaagt atttgcgca aaataaaggc 2280
ctattctact cttatttaaa gtgaaacact gtatacttgt ttctctccaa agcgaaatta 2340
agtattttata atttcaattg cctcgataag ttccaagtc actgaaatct gctgaagggt 2400
ttactgtatt gttgcacaac ttttaagataa tttttgtctc aatgtcaact tttttcactg 2460
aataaaaaatt taactgggcc

```

&lt;210&gt; 475

&lt;211&gt; 1459

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 475

```

ccagaaattg gtcggctggg gaaatgcaaa agttagcatt tcagtagtga atttctcctg 60
gaacaaatga gcaatttttc ctctttctct taagtagtat acccttttct cacttagtaa 120
tttaattgga tataaagaca tgtgtataag tgagtgcata catatgaggt atgactatag 180
gggtgtttgt gggaatttct tttcctaaca tacagaagat caaagtgttc atctcaccct 240
gccctcctta aaagggtgtct tttgggagac tatgtgctca ttgactatag tgcgccaag 300
taaaaaatctc ttgggaactc ttctactaga atggccttca gggcttggca tgttctcttg 360
gtttaccctt agagatgaga aatcctctct ctttgaggat ggatttaagt tctggaaata 420
atctcaagtg cttgatagca cagttggatg aaaaaagatg gcaattagg taagttacac 480
catttttgggt tctaaaaaaa tccctaagaa atttcttggg atgagtcttt ggctcagag 540
cctctcaaa ggtccacttc aaggggggga tcatctcat tagcacacag atttttaaaa 600
atcaattctc ttgccatgcc tccatgtgt tccatctct gcatacacta cagatataag 660
tgcataatca ttcataataa catctggtag gtattctgta aaactgtgtt tacttttagt 720
catgttattg tcatgttatg atgtgactgg ggtgtttctt tgtcatgaaa ctttgccttct 780
tcacagaatt agaatactgc tctctctata ttgaactaca tatacagcgt tttcttgtat 840
cagcccccaa agtctggatg cccgggtgtt gtgtttacatg tgatttgtcc taggagtctg 900
ttcacataga gacacctgta agtatttatt acaaaacgga atgtaagcaa atatatccac 960
attggtttta tttgaatcaa ggtgtttttt tgttttttgt tttttttctt tttgaggagg 1020
aacagggagc ctctctctcc atgagcactt acagaattgt gtaaaattct gtgaaacagt 1080
ggtaagcatg ggcacccgat ttcagctgtc ctgctgccgc tgcctccaa cctgctctgt 1140
gtgtgtgtgt cgctgtgctt ggtggcagtg tgccgtgctc gtgccggctc ttcccagcag 1200
agtggatatc ggctgtaacg tttgacgtct tcatattgcc agtctgtatt gaggggtgat 1260
gtacatggcc atacagcaa atgggtctgt gtaccagtgt ggggattcca agaactctgc 1320
ctgtccccc cagcaaatat tgatgctgtt ggtagccaa agattttct ctcttttgt 1380
gcttaaaact gtgccttaat attgtacata ataaatggat aaaanggcaa aaaaaaaaaa 1440
aaaaaaaaa aaaaaaac

```

&lt;210&gt; 476

&lt;211&gt; 1329

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 476

```

atcctgtctg aaaacattta gatgaggcaa gtgttctctc caacttcac ccaaccaga 60
gccttccaac ctgacccacc tgatggaggt tctgtctgtg ctggtgcccc gctgccatac 120
tgcaatcgct cttcaccttc acccttccct ttgctctct tctgcttgg atctctgctt 180
ctcattctta ttctcagact cctcttgtt gatttctccc ttgttttgt gaaaaactcat 240
ccagttagcct gctaagaagg ggtgaatgaa aggtatagtt tttgaaacag ctaacatctg 300
aaaggatttg tagtaccttg agatgtgatt ggatattttt gctgggtatac agttctgggt 360
tggaattaat ttctcagaat tttgaaggct gtcattctc cattatttct aacttctttt 420
gttacttggg gaagcccaaa gccattctga ttctgtatgt ggccagtgt ctctctctg 480
caccttattg cataatttct ctgtctgcag tgttttgata tttcctgggt tttatgagtt 540
gatgtccatt tttatccatt ttctctggca ttaggtaggt ccttcatagg cactaggagc 600
ctggaaatat gtgtcctcca aagaagtgtt ggtcaattat tttgatgatt tcttgccctt 660

```

```

tatgtctcta ttcctatatt ataaaatacc tattattggg tgtattagta ttaattttct 720
tattttttct gttctgtcgt ccagcttttt gtctttttgc tctactttct gggagagtcc 780
gttgagttaa tcttacagt tttcatactt gaattttcaa gagcttgta ttgttctctg 840
aatgttcctt tttatagcat actgtttttg tttcatgatt aaaatatctt ctcttacctt 900
tctgagaata taaatatttt tgtctttttt gcccaacata gtctgtttcc tgcattttat 960
tttcctttct gttttgaact ctattactca gatttttcag gaatgagcta tttcttcata 1020
tttaagaatt gaagacaaaa agactgattg gggtcagggt cgggtgctcac gcctatcatc 1080
ccagcactct gggaggccta agcaggcaaa ttgcttcagc ccagcagttt gagaccagcc 1140
tgagcaacat ggaaaaaccc gatctctaca aaaaatacaa aaattagcca cgcgtgggtg 1200
catgtacctg tagccccagc taccaggggg ctgagggtgt aggatcacct gagcccagaa 1260
agtcttggtc gcattgagct aagattgcac cactgcattc gagcctgggt gagactgaga 1320
tctgtcttc                                     1329

```

&lt;210&gt; 477

&lt;211&gt; 1722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 477

```

cggcaaagag gcctaagtgc acagacattt tctttcctta agcttcaact ctctagtgtg 60
attatactag tcttccattt tccgggtttt tgtttttcta tttacattac tgtatgaaga 120
ggaggaagct gatcttgga tctcgttaagt cttggaatta aaagacagga aaatgctgta 180
gaagtaaaac tgtttaaact tgaagattt tacatatata tttataatta attttgggtc 240
cttgctgatt ttatgggttt ggtaagtact taggaattaa gtctactctt agtttagtct 300
taagattttt atagtaaaata ttttaaatat atctgaaata ttaagataat tattcaaata 360
tactaataga gttgctgttc tttcaccatt tgcttagtgg ccaacagtat tctgattgga 420
attgattatt atcattggac tgaataatac aatttttgta tattctaaga gacaactaac 480
attaataaat aaatacactg tgtctacata tctactctg agcaaaaaga tagatatttt 540
gctcattttt tctcagtggt catagaggaa ctgagatcgt gccactgcac tccaggaaaa 600
aaaaacacta cttgaaggta cccttgatta tattggattg ccataggtca tttcagggtg 660
cataagagca atataatttt gttcattgcc cattcccaag aacctagagc agtatctaga 720
acatagtata tgtcaataaa tatgttaaat gaatgaattt gatttgattt gttttaaaat 780
agaatagttg tactctgagg gaggaggga atgcttaaac aatactaaga attccattct 840
ttagagacaa attacttaga agttgatagt gacatattga aagggttgtt gattgttga 900
ttattcaggt ggtgaagatg atggtagggt ccatggcggc tgagggagaa tgagtcttaa 960
acactgagga ggcacaaaag attgggtggc tggatataat aggaaactgg acgaaagaag 1020
gagaagagaa tggcgtactg ataaaaaata tgaatgaaag aagatgtgtg gaaaagaaag 1080
tttcactttg aaggcttgat ttttgaaagt atggcagata tagatataca tccaatagat 1140
gagtgggaaa agtaaatcaa acaaatgaaa aattgagtc aagattgatg ggagactaat 1200
aatggggagg actgagcctg ggggcaacta cattagtaac agtggcagg tttgtttttt 1260
catgttcatt taaaggaagg aggagagatt tatgtgttag aaaaaggga attgtggttt 1320
aatcaataat aatttaggtg ggtatcctag ccactgaatt acaggctttg aggtaatata 1380
gaaataacct agttottgct atggagtcaa atagatgatc taattgtgga agctatacat 1440
ttagcagctg ttctagaaca atgtctgtca aaatataaac cagtagttaa tgtaagttag 1500
gcattcttta ggagggttaag aagggaagac attagtgtag aacaagtttt atagctggag 1560
aagtcctttg agataaagtc tagtcaaatt gttatttaca ggtgaggaaa ccgcccttag 1620
gaggttggtt ttgcccgata tcttaaaact atctaaaaa attgggaagg cttcaaggaa 1680
gcattgggtc ttgaaggtct aatatgattt ttattgggtg gg                                     1722

```

&lt;210&gt; 478

&lt;211&gt; 2494

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 478

```

gggctttctc attaagagta tttttctgaa attgtcagtt ataggaagaa agttattctt 60
ccagcagggt tataatatct tgattattaa atttaaattg ttttagtgga aggaggcaaa 120
accggaagac cttatggatt caaaacttag atgtgtgttt gaattgccag cagagaatga 180
taaaccagta agtatattta tagttaacaa taattgaatg ttgtaagctg atacttattt 240
gcataccatt tcttgcaaaa ccaagattta agttggcaaa ttattttcct ttatctgatg 300
tctgaagaaa aaaaaataagc tgaagtcagc aaataagtgg gcctttatga aatcagcctt 360
tgaaaaactc acggaaagac aactgattga cagtgtttcc ccttgaaaag tgcagcccg 420
tggccattga gatgtcataa atcctgaaga gcttctgtgg cctggcaaaag gtataggttg 480
ctgttaaaca gtgggtgaga gtgaaagagg gaacaatttg ccctttatca tgggtggttg 540

```

```

tggacgtgtg ggaagctttc aagttctctt gttttacaaa gtgccctgtc agcctcccta 600
ccccctttac cctatctacc tcttcaatca aaggctgctt ttagatgagg atttctcagc 660
ctcaacactg ttgatatttg gggcaaatcc ttggtggtgg tggagggtgc cctgtgtact 720
gtagggtgtt ttattaatag cagcatccct ggcttctgcc ctcttgatac tggtagtact 780
tcccagttgt gacaactaaa aatgtctcca gatattgcca catgtgtcct ggagggcaat 840
atcaaccccc attgagagt atccccctcc ggtgttgcc tggggagaa ggaaggagcc 900
ccatcctcta ggctgtccac tgtgagcgt ttacctttca tgatcctcac ttgtgaccag 960
ttgaagaaag gagactgtat ctgaaatgct aatttggact tcccttcaac ctagtcgaaa 1020
acattttaat ttttataaaa acacaaaac tgtgaaagca tgcagcatgt gaaactatcc 1080
tagccattaa tagctggagt tgggaaacag aagtacctg aaatgttgtg ttaacagtat 1140
ctatgttggg ctgcgcgagt gctgttgatt tgtgtcaaaa gtacctgaga ttttatttct 1200
gctgaatcat ttaccactat cattaccctg tttctttaag tggatagtgg tcattttttc 1260
cctcttccca gtgtacatcc tgtcacagga aggtcagttt ggaagctgtg aaagcagtat 1320
tctggcctca gctctgtgat aggttgactt ggtagcctgg ggcttgcct caccggcct 1380
actcttctca tctggaaaat gatgggtaga gctagattcc aggccaatga tctgcagtta 1440
ctctttccct gacaagctgc gtgcttccat gccctccctc cactgactgg ctctcatccc 1500
ctgtaaactc caagagggga tcatagctga atcttggcag gggaaataag gggagtatgt 1560
aacttcccaa gattgaaaca ttgcagacac tgagtgtgtt tcaccttcat ccagcttcc 1620
aaatgctaag ttggtaaagt aattcgccct ctgtctaatt ctctcccaag cctcctaacc 1680
ccactaaggc aatcctaggg atgttcacat ctttgtggtg acagtaattt gtggctaata 1740
attcctgagc ttgcacaatt acagtatgct gatttttccg tggcaggaat ttgatagtgc 1800
aatatacaca gccctttttc tctttctttg aagtattagt ctgagccgaa cttcattatt 1860
tgcccttacc cataatttct agggccctgt tgcttttagat tattaagata tcagataaag 1920
taatccattt ttaaaataaa tgtgacattt tacagtgtgg atgaaatgct accacgtttg 1980
gtgtttgctg agaactactt tactttgcat aaaaaagtcc attattacat ggtcggtgac 2040
acttaggctt tcatttgttt ttgaacagca tgatgtagaa ataaataaaa ttatatccac 2100
aactgcatca aagacagaaa caccaatagt gtctaagtct ctgagttctt ctttggatga 2160
caccgaagt aagaaggtta tgaagaatg taagaggctg caagggtgaag ttcagaggct 2220
acgggaggag aacaagcagt tcaaggtaat agtttatttt ctggtaatct acagaaaaca 2280
agggcggttt cactagcttc ttgggtgggg aagtgtatga gccagtgaat atatagattt 2340
ctttttgctt ttggtatttg gctatttttt tctccccag ggagaaattt ccatggcttt 2400
catgagagtc tcaaaagggc ccttggatct gcctaaatta agaaccactg tcccttgatc 2460
agaaatttct caactgttga agctcttgc cccc 2494

```

&lt;210&gt; 479

&lt;211&gt; 1217

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 479

```

atccagttta ttttgcattt atggaactaa atgagatgat gttgagagtt ataaaaagaa 60
agcaaaaaat aagtttgact atttgaattg taaaatagaa taatatataa ttttattcta 120
ttgattttta aaacaaaatt tattaagaat tctataatcc tatgcaagtt ttgagattta 180
aaaatctaca actagaagat gtgctttgtt attcttttct gatactgatg tatttataac 240
tgcccttctc cttctttgaa aagaaaacta tcccaataat aaaatattaa cttattttatt 300
tttattcttt ttatttttac tttttgtggg tacatagtat gtatacattt atagggtaca 360
tgatatattt tgatatgggc atgcaatgtg acctagtgc atcaggggaga attgggtatc 420
catcctctca agcatttgc ctttgtatta caaacatcc aattacactc ttttagttat 480
ttttaaatgt acgattaagt tattattgac tatagtccac ctgcttgcct tcaaatagta 540
ggctttatc attctttcta tttttttgta ccattaact attctcccca attttatgtg 600
tagatttata tataataatt gttctattta ccagcaatga aatggtaact ttttttctta 660
tcaggaaagt aataattatt ctgtcttcca ttttataata acattaattg cttttattaa 720
aggcttactt ttacaatatg ccgagactgt actgacaacc taccttatga agttgggcta 780
ttattattcc attttaacaa gtaagtggac tgaggtttta tggcccacgg tcacagagtt 840
aagtggtgaa gaggccttga ggtctaactc aggagccagg attcttgatc gatgtgttat 900
tcttctctc tcttggcaaa tagcatataa tataaacata tgcatcogat cagagttgta 960
cacaaaattg acttttagtt taaaagctaa tttgttaagt tttaaatgtg aataaaaatg 1020
cgtgctttat ctttctgtgt tgtcttatgt cgtcggaaat tccctttcag gaaagtttct 1080
gtggaacatc tatcattgta ccagaactgg aaggagctct ttatttgaaa gaagatggaa 1140
agaaatcctg gaaaaggcgc tattttcttt tacgggcttc tggaaatttat tatgtacca 1200
aaggaaagac taaggcc 1217

```

&lt;210&gt; 480

&lt;211&gt; 2159

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 480

```

tttttttttt ttcagcacaaa gcatttttagg tttattttaa taaaaattat aattttatata 60
atactttttt ttttaacaaa caaagttttt ttaaaaaaat gttacaggag aatttttttt 120
atcggtttct aatacagtag aatccttttg ttgaacaaaa gtcacactgg caatgattat 180
ttacagatcc aaaatagact caggcttcag acataaaaaa tttaacattc gtctagtttca 240
gtgattagtc acagaaatta aacatctgcc cagatgtaca caatttggtta aaaactacag 300
cttctctcca cggggagccc agagcccggt cccgctccgc ctccgctccc gaggacttcc 360
agggaggggg ctgtgctggc agcagagcca gtcgggtggc ctcccccgac cccccgctcc 420
ccgaatgtgg cctccctggg gggcttcggc cacacctggc acgtggtcag ttttcatctc 480
cctttctcca caaaaggagc tcgaactaaa ccacccgacg ctggttaaagc cccatctgac 540
ccagggaccc ctcccgctgt gtttggggag tgaatcccag cacttaggaa gaggcgctca 600
ttggccccga ggccccggac ccaccccttg gcaactggc gccctgggga gagaggtgtg 660
gccattgtct gcgggcaact cctctgcagc cgcctctggg ggtggttcag tgccaccctt 720
gtgttgcttc agggcccaag gtgggggttc ctgggatatg tccccctccc ctggtgcacc 780
aagagagcca gtcccctaca ggagccagac ccacggctca gagcgggttc tgtccccatt 840
cgggaaaggc cgcctgtgtg tcatcctgac gccaacgtcc gcgcagtcga gagccacggg 900
ggctccgctc caccgcctgg gataggacat gtgtttaatc tgggtgatcg cgagctccc 960
cccaaagcac ccccggcacc agcgtgtgac tctgcggccc ctggtgaagg ggggtgaaac 1020
agcccatgac gccggtatcc tcaccacac cagcaaatga ggatcggagc aaagataaaa 1080
attacatctg aaaaaggata caaaaataag aaaaccagct tgctcgtgtg aaaaaataga 1140
atcttctgtt tcttcaaaaa acaacaatct caacgacacc caagggactc aggacaagct 1200
gagggagctg cgggatccgc cccagcagac acgcaggccc gcgggggtgg caccctcttc 1260
caggaggccc aagccgcctt tccctccctt cagcccagcg caggcggccc cagcagacca 1320
ggcctgcggg cgctccctcc acaaatgcca ccttgttccc gggaagccca ggcttccctg 1380
gggcaggggc ggggctgggg gggctgtgtc ccggaccggc accggctagg cagcgggggg 1440
agggaaacgt gtgcagtc gcctgcaggc agtgccaggc caggctctgg gctcggctca 1500
cggttgctcc cttaaagcaca ggggctgcca gagcctctcg gatggcccaa aggcggctgc 1560
agcctggggc accatggtcc cgggaacact ctccccactt cctcccccaa ccaaccagg 1620
caaccgcagc ctggggggcca tgtgccagac atgccacagt gctcggagca cctccaacag 1680
ccttcgcgga tgttctcctg ggccttccaa agagcaaagt gtgagaaaga tgtgctttta 1740
cctgcaccat cctgtgccct tactggtccc cagctacaga cctcctggcc agcgtgtcag 1800
gccgagagca gcaggcaggc ccttacagac acggtgctga gcgccctgga ggccagcaag 1860
gaagggtgcca ccaaagacac tgagggcagg tgagggggtg gcccttctca cctctctgt 1920
tcccgtagag cgagtgtgga gcgcaggcag ggtcactgcg cccggcccca gcccgccacc 1980
aaggggcaat gccacaggag ggtctcatgt aagaggaagg aggcggccag gcccggttct 2040
cgggtggttg tgaaaggccc ccatgtccct ccttgacgac atctttctgt cccagaggag 2100
aaggggcccc cactcttcag ctatggcttt ggtggtggac gagcttctgg cccttagaa 2159

```

&lt;210&gt; 481

&lt;211&gt; 2208

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 481

```

tttttttaag aaaattatct tccatattgc atggaattgt gaactaatgc tatatatattc 60
agttactcta actttttatt tttttaaagt aaaagtattc atctaaagaa atttagttct 120
aatgtagttg ggattgcaaa caactttttt tttttcatct gcagcactgc ctctaaacc 180
accaaaccct actactgtag ccaacaacgg tatgaataac aatatgtcct tacaagatgc 240
tgaatggtac tggggagata tctcgaggta aggtacaga aacttcattt tcagagagtt 300
ttagattaaa agaaagaaaa gcaccagctt gctaagttcc attttttagga tatcatccaa 360
cataagcatg aagcatagtt ggttctcttc caaagacgac cagaaaaagt cactgagcac 420
tggaagactg tgggtgctgg atgccacagg aaattaaata cccgggaagt ttcattattg 480
acagagatgt cagtgaagtg ccagagtga gttgacactg ctaagaacag agtgtgaagg 540
cactctatct attaagcaca actctaagaa ttcttgctt aaacacaata agaaaacaat 600
gccattttat gttagctttg ggaaggggga gtaagggttg agaaactctt ttgagatcat 660
gagtttctgt gctcatttgt cagagagatt gtaatgtttg gttgaaaaaa taaaaactta 720
gtaccacaga tacaccaata gtgaaagtga tatgcacctg tttgtgatga gactgcaatt 780
gctaaccatt ctattttaa acattattag ctcttattag tgagctctga aaatgcaatt 840
cattaattta aatctatgtg ggcaggagga atatgggcac tcaactgtact ttccacttga 900
ttttgctgtg aacctaaaac tgctctaaaa aatagcctat tttaaaaaat ataatctgt 960
ggtcactaaa ccttaagatg agcattgttt tgtgttttca tttcagggaa gaagtgaatg 1020

```

```

aaaaacttcg agatacagca gacgggacct ttttggtacg agatgogtct actaaaatgc 1080
atggtgatta tactcttaca ctaaggtaag ccagggaata tagctgaaat tagggttttg 1140
ggctgatatt aaaacatatt tccttattcc aaaatgttaa tacctttatt tttatattgt 1200
ttttacagga aagggggaaa taacaaatta atcaaaatat ttcacgcaga tgggaaatat 1260
ggcttctctg acccattaac cttcagttct gtggttgaat taataaacca ctaccggaat 1320
gaatctctag ctcagtataa tcccaaattg gatgtgaaat tactttatcc agtatccaaa 1380
taccaacagg taataaaaaac tgaatgaatt atccagttac gatgtttaga caagatcctt 1440
ttaatactta gaaaacattt gaagcagatg aattacatgt aatcaagtct aaaaaacttg 1500
acactcgtaa ttacataatt gcaattttta agatgtttcc atgtcagcta ttttggtaaa 1560
caattgttat ttgattaaat nccttatcca ttgaatttat tttaatcttt ctaggatcaa 1620
gttgtcaaag aagataatat tgaagctgta gggaaaaaat tacatgaata taacactcag 1680
tttcaagaaa aaagtcgaga atatgataga ttatatgaag aatatacccc cacatccag 1740
gaaatccaaa tgaaaaggac agctattgaa gcatttanng nnnnnnnngg natatttgaa 1800
gaacagtgcc agaccaaga gcggtacagc aaagaatata tagaaaagtt taaacgtgaa 1860
ggcaatgaga aagaaatata aaggttggtg tttcccttgt tcttggtgcta gagataacca 1920
aaatcctcta aaaccattta aagatgatct cgttttctgt gctttgaatg atcacgtgga 1980
cacaggaagg ggaatatcac tctggggact gtggtggggg gggggaggga gggggggata 2040
gcattggggg atatacctaa tgctagatga cgagtttagt gtgcggcgca ccagcatggc 2100
acatgtatac atatgtaact aacctgcaca atgtgcacat gtaccctaaa acttaaagta 2160
taataaaaaat aanaaataa aataaataa aatatgttga gccactcc 2208

```

&lt;210&gt; 482

&lt;211&gt; 1627

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 482

```

ccatgtcctt ggtaagcctg cacacctggc ttcctaattc ctgagagcct gccactgtc 60
cagatccagt gagttggtac aaaacgtaca gactgaagtc cctgggcttg cttttcccat 120
gggtgaggac cagaaccaga ctctgagcat ccttaccctt gccacccga attgttccaa 180
gtttgaggta ccccgttccc agagatctgg gggcctctct ttggagggct tgctttgttc 240
tgatggcctt cagaaaggaa tcacatgaag tataaaagga caggccccct ggtcaccaag 300
ttttggctcc tcatacagat aggactcatc caggttccca gcgaggcact gactaagcga 360
ggctcagagc ttccatatca aattcctcag ctttgttctg tgcccagagg ggggtggccc 420
cattctgggc cctgtgaact ttgtcttata tatcaccatc tgtatcagaa ttctcctca 480
attgcagtta agtgaaaata cgtggaagtc tgcttttcca tcctgtatc tcccacatca 540
ctactggctg tgcggccccc gctgcttgcc aagcttggga atccagagag gggcagtagt 600
agagtgggac agttgggacc caccgcaga gctgaagaaa cagccagac taactgatgg 660
gattccacac cggagcctct gagcgcacag gcaggcatgc caagggggct gcagggtttg 720
tcctttactt atctgcccct ttcctagaaa actcctcgtt tctgaaatta ggcattatat 780
ggttccagga cccagccttc aaaattcctg gcaggccagc ttcaacattc catggccagc 840
cctgcctaag ccagacttgg gtoccatgct ctcagtctct ccagtggata tcttctgttg 900
tgcatgctgt tgaagccaac ccaaaggcca accgaggcac acaggagttg ggactggctg 960
ccacaaagct agaaaggac aaaacagcac ttgcttccct atggccacat ggatagtcct 1020
tgatatacct tgctgtggtg gaggtcctct acccattcca gccactgata gcagggggat 1080
tttcttctct aaggagaaca gatgtaacag ctttgcaaag taccggccca taggaatcaa 1140
atgggtgaga tcagcttttg gcctgacccc agcaagacca gcactctccag acccagcct 1200
ttctcctcag gcctaagaga gtcagggaaa gagaggagac tgtcccagag accttctcct 1260
ogggtcagcc agatagctct gatctatggt gtgactcaag ctctcctta cccagggggg 1320
gtaaggccag gccttagct acttgaggtt gtctgtaata atcttgaaag gcccaagggc 1380
ctgtcccat cctgacttaa aggcactctgc ttcctgttt catatcacat gacagagaaa 1440
cctgttctca tggcatgtaa catccctgtg aagagagcgt tgtatatgat tttgtatttt 1500
ttaattcatt ttaatctaca ggttggaatc taatttttaa attttatttg aactcacatt 1560
ttaaaaagaa ataaaattta aaataataat aataataata ataataataa taaacctttg 1620
accagtg 1627

```

&lt;210&gt; 483

&lt;211&gt; 1340

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 483

```

gatagaaaag ttttttaaaa agctgagtg aattgacatg aattagtgat aaatgaccaa 60
aaaaaataca ccactaatct aaaatacttt atgacctatc aaacaggaga cacaagtttg 120

```



```

tcaaaaagtt tgagacactt agatgcactt agatgcctta gaaggcatct ccattcctcg 180
tctggaacat tcacaagtgt ggtattggcc ctaatcagtt ctacgaacaa ctttttaata 240
aggctggttg ggtaaagact aacttctggc tttgttttcc caatagaata tgctagaact 300
gtgcaacttt agacattttt aaggaataag tgtattatta ctcatagtag tgaagggaag 360
attcacactg ttctcaaggc taatagacgt actgttaatt ttagctcatg tgtttaaatg 420
gattgtctat caggggaaaa aagtcaaata tgaaattgtt ctaatgataa tttgctgtaa 480
ttctaaagcc aatatgtgaa agagctgtgt aataatata ttaaatacta aaaaatcttt 540
tggacattaa ccttagatgc tgatgtcttc ttattgagtt gtggttgtgt ttggctaata 600
ctggttgaaa gccctttaat ttttcagtga catcataaag attttttata ctactgaaat 660
catccataga atgttttaaa ccagttttct aaatatcatg ttttttttaa aacctaccac 720
tggataccca gactctgaaa ctgggcttct cccaatcttg gcaacattag caatgatact 780
cactttcagt attgatggca accctatagg aggcgtgacc attccaattt tgattttatt 840
tttaaagtgt gaactttcca gaacctgag caaatgagt gcagcgattt tctttttgta 900
ggacaagaag acagaagagt tcttctctgt ggtgactaca gactagagga atgctctagt 960
gagtttccac ttcaagttagt acccactcat aagccggggg ggcagaccct tctgtctaaa 1020
cacatctttt atttgtgttc cagcgggtgc tacaggttca ggtgtttgct ggcgtcctgt 1080
gttctgtgga tctggttggc gggggccctt tcttggcccg gcctggtcca ctggggactc 1140
agagggccac gtccgggggg cgggcccnnn ggcccggcg ggagagcctc cttcggcngt 1200
ttctgactga ttacnnttt ttaaaggaat gtgatattta tattatagac atacagagat 1260
atacaaatat attatatatt tttctgagat ttttgatata tctatctgca gccattcttc 1320
aggtcgttgc atttggagcg

```

&lt;210&gt; 484

&lt;211&gt; 2154

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 484

```

gtgtggtttc tgcgggtgat gctggcgccc gtaccatgag cgaggcggac gggctgcgac 60
agcgccggcc cctgcccggc caggtcgtca cagacgatga tggccaggcc cgggaggcta 120
aggacggcag ctcccttagc ggcagagttt tccgagtgac cttcttgatg ctggctgttt 180
ctctcaccgt tcccctgctt ggagccatga tgcgtctgga atctccata gatccacagc 240
ctctcagctt caaagaaccc ccgctcttgc ttggtgttct gcacccaaat acgaagcttc 300
gacaggcaga aaggctgttt gaaaatcaac ttgttgacc ggagtccata gcacatattg 360
gggatgtgat gtttactggg acagcagatg gccgggtcgt aaaacttgaa aatggtgaaa 420
tagagaccat tgcccggttt ggttcgggcc cttgcaaaac ccgagatgat gagcctgtgt 480
gtgggagacc cctgggtatc cgtgcagggc ccaatgggac tctctttgtg gccgatgcat 540
acaagggact atttgaagta aatccctgga aacgtgaagt gaaaactgct ctgtcctccg 600
agacacccat tgaggggaag aacatgtcct ttgtgaatga tcttacagtc actcaggatg 660
ggaggaagat ttatttcacc gattctagca gcaaatggca aagacgagac tactgtcttc 720
tggtgatgga gggcacagat gacgggcgcc tgctggagta tgatactgtg accagggaag 780
taaaagtttt attggaccag ctgcccgttc cgaatggagt ccagctgtct cctgcagaag 840
actttgtcct ggtggcagaa acaacatgg ccaggatagc aagagtctac gtttctggcc 900
tgatgaaggg cggggctgat ctgtttgtgg agaacatgcc tggatttcca gacaacatcc 960
ggcccagcag ctctgggggg tactgggtgg gcatgtcgac catccgccct aaccctgggt 1020
tttccatgct ggattttctta tctgagagac cctggattaa aaggatgatt ttaagctct 1080
ttagtcaaga gacggtgatg aagtttgtgc cgcggtacag cctcgtccta gaactcagc 1140
acagcgggtgc cttccggaga agcctgcatg atcccgatgg gctggtggcc acctacatca 1200
gcgaggtgca cgaacacgat gggcacctgt acctgggctc tttcaggctc cccttctct 1260
gcagactcag cctccaggct gtttagccct ccagatagc tgcccctgcc acgcaggcca 1320
ggagtcttca cactcaggca ccaggcctgg tccaggagga gctgtggaca cagtctggt 1380
tcaagtgtcc acatgcacct gttagtccgt gagagggtgt gggaaatggt gcttcattcc 1440
tcgaggatgc cggggcccca cctgggcttg tctttctgtt tagagggaag tgtaacatat 1500
ctgccatgag gaacataaat tcatgtaaag ccattttctc ttaaacaaaa caaaactttc 1560
taagtacagt cattctctag gatlttggaa gctccttgca cttggaacag ggctcagggt 1620
ggtggagcag taaggcacta ccagagagc ttgctgtctg ggcctgtcc tgcggcctca 1680
aagttcttct ttactatata taacgtgcgg tcataccttt cttcgttgtg gtggggatgg 1740
aagagcagag ggagcatggc ccagggtgtg tgaggccagc ggtgagagcc gtgttagcca 1800
agacatggaa ctgtgttctc aagggttatg tggggcgtgg gctctccata gtgtgtatga 1860
aaagcttggt gactctagcg gctcagagag gactttgtcg ggtttctttc tgtgaatata 1920
tccgtgtgta ccatgctgga attggatgat tctgcaatc gggacctact gcaggggtcc 1980
gtttagtaac gtcttgtctg tgatctttgt tcttgacctc tagaccccaa gatgtgaaca 2040
gtgcacgtgt taatgtcatc tttgtcatg ctttataagc cccaagttgc tgtatatatt 2100
cacaagtatg tctacacact ggtcatgatt ttgataataa ataacgataa atcg 2154

```

<210> 485  
 <211> 537  
 <212> DNA  
 <213> Homo sapiens

<400> 485  
 gtcaggaaga tggcggcctc tggggcggag cgcaggtcc tgggtacaata cttggtgtta 60  
 cgaaaggatc tatcacaagc tccgttctcc tggcggcggg gcgcactggg agcgcaggct 120  
 tgtcacgcgg ccaccgcggc cttgcacact caccgcgacc acccgcacac agccgcttac 180  
 ctccaagagc tggggcgcat gcgcaaagtg gtcctcgagg ccccagatga gaccacccta 240  
 aaggagctgg ccgagaccct gcaacagaag aacattgacc acatgctgtg gottgagcaa 300  
 ccagagaata tcgccacttg tattgctctc cggccctacc ccaaggaaga agtgggcccag 360  
 tatttgaaga agttccgatt gttcaagtaa ctgctgcttt gatgtgtttg aatacgagg 420  
 ccaccattc caaagcatca tgtgttcctt gcagtgtcag cttgtctccg tctttcagtt 480  
 gtgacaattt cttgagggtt aagcacatgt tcatattaaa gttgtcatta ataactt 537

<210> 486  
 <211> 390  
 <212> DNA  
 <213> Homo sapiens

<400> 486  
 ctccaagtcc cagcgaaccc gcgtgcaacc tgtcccgaact ctagccgcct cttcagctcg 60  
 ccatggatcc caactgctcc tgcgcgcggg gtgactcctg cacttgcgcc ggctcctgca 120  
 aatgcaaaga gtgcaaattc acctcctgca agaaaagctg ctgctcctgc tgcctgtggt 180  
 gctgtgccaa gtgtgcccag ggctgcatct gcaaaggggc gtcggacaag tgcagctgct 240  
 gcgcctgatg ctgggacagc cccactccca gatgtaaaga acgcgacttc cacaacctg 300  
 gattttttat gtacaaccct gaccgtgacc gtttgcataa ttcttttttc tatgaaataa 360  
 tgtgaatgat aataaaacag ctttgacttg 390

<210> 487  
 <211> 1146  
 <212> DNA  
 <213> Homo sapiens

<400> 487  
 ogtttttttt tttttttttt tttttttttt ttagaagaat ctactctgt cggccgggct 60  
 ggagtgcaat ggaacgatcc cggctcactg caaactccgc ctcccggtt caagcaaccc 120  
 tccctgcctc agcctcgcca gcagctggga ttacaggtgc ccgccaccat gccagacaa 180  
 tttttgcatt tttagcagag acagggcttc acctgtttg ccaggctggt ctogaactcc 240  
 cgacctcaga tatccatccg cctcggcctc ccaaagtgtg gggactacgg gcatgagcca 300  
 ccgcaccagc atggcctagt catTTTTTTT aaccaattt tgaggccctg gttagaggct 360  
 ggtagttct tcttgagtag cagatctata cccaaccac ttcccggtt agctctcaca 420  
 ctggaccatt atgtatctac cctaactgcc ccagggccag ctatcctaca aagttagaaa 480  
 acccgtatac aggagccaca gaaagtactc aaattagcta atccataggg agcccaagaa 540  
 acctagctaa cctcccttc ctcattatgc ttttataaac tgttccctac tgttgaagct 600  
 tgctgttcac ctgtcctctg gtacaactcc ctgtgtagcc ctacatgggg gctttcatc 660  
 acagctataa atgacaaaca gagtgcactt catctaaaga tgaataatga agagttgggc 720  
 atttcaacta agatgaacaa agatttgtgc ttttcatcat tgcgttgttt tcggctagca 780  
 aaaaaaatcc ttaaagctca taaaacacac ggtggggcag attaatggat taacaccata 840  
 aggtcattta gggacccaag ttccctccat ctctgttcc ctaggagttt tcttaggcag 900  
 gggagaaaag agttattttt atgtattttg tacaagatgt gttttgttca attcagattg 960  
 acagtcatca tctcttcaaa cagtgtttt cccaattct ctccattttg aaatagattt 1020  
 acctattttc atatattttt tcctatttat acatctctta aactgatag aaagtagtta 1080  
 tctttttaat gctctgcctt attgaagaaa aagccacccc tttcctaaaa tagtgatcct 1140  
 tagaaa 1146

<210> 488  
 <211> 2002  
 <212> DNA  
 <213> Homo sapiens

<400> 488

cgcggcggtta gttggaggcg ggagaggggtc cgtagccgcg ccgccctgcc ccgccatggg 60  
 cctcctgtcg gacccgggttc gccggcgcgcg gctcgccgcg ctagtgtctg gcctcaacgc 120  
 gccgttgtgc gtgctgagct acgtggcggtg catcgccctg ttcttggtgc tggttttccc 180  
 gccgctgacc cagcgcactt acatgtcgga gaacgccatg ggctccacca tgggtggagga 240  
 gcagtttgcg gccggagacc gtgcccgggc ttttgcccg gacttcgccc cccaccgcaa 300  
 gaagtccggg gctctgccag tggcctggct tgaacggacg atgcggtcag tagggctgga 360  
 ggtctacacg cagagtttct cccggaaact gcccttccca gatgagacc acgagcgcta 420  
 tatgggtgtcg gccaccaacg tgtacggcat cctgcccggc ccgctgtctg ccagcaccga 480  
 gtgcgttgtg ctaccctgtc cctgtggctc tgactctacc aacagccagg ctgtggggct 540  
 gctgtgtgga ctggctgccc acttccgggg gcagatttat tgggcccagg atatcgtctt 600  
 cctgttaaca gaacatgacc ttctgggcac tgaggcttgg cttgaagcct accacgatgt 660  
 caatgtcact ggcatgcagt cgtctcccct gcaggggcca actggggcca ttcaggcagc 720  
 cgtggccctg gagctgagca gtgatgtggt caccagcctc gatgtggccg tggaggggct 780  
 taacgggcag ctgcccaccc ttgacctgct caatctcttc cagaccttct gccagaagg 840  
 gggctgtgtg tgcacgcttc agggcaagct gcagcccag gactggacat cattggatgg 900  
 accgctgcag gccctgcaga cactgctgct catggttctg cggcaggcct ccggccgccc 960  
 ccacggctcc atggcctctt cctgcgctac cgtgtggagg ccctaaccct gcgtggcatc 1020  
 aatagcttcc gccagtacaa gtatgacctg gtggcagtgg gcaaggcttt ggagggcatg 1080  
 ttccgcaagc tcaaccacct cctggagcgc ctgcaccagt ccttcttccct ctacttgctc 1140  
 cccggcctct cccgcttctg ctccattggc ctctacatgc ccgctgtcgg cttcttctgc 1200  
 ctggctcctg gtctcaaggc tctggaactg tggatgcagc tgcattgaggc tggaaatggc 1260  
 cttgaggagc ccgggggtgc ccttgccccc agtgtacccc ttccccatc acagggtgtg 1320  
 gggctggcct cgtcgtggc accctctgtg atctcacagg ccatgggact ggccctctat 1380  
 gtccctgccag tgcgtggcca acacgttgcc acccagcact tcccagtgcc agaggctgag 1440  
 gctgtgtgtg tgacactgct ggogatttat gcagctggcc tggccctgcc ccacaatacc 1500  
 caccgggtgg taagcacaca ggccccagac aggggctgga tggcactgaa gctggtagcc 1560  
 ctgatctacc tagcactgca gctgggctgc atcgccctca ccaacttctc actgggcttc 1620  
 ctgctggcca ccaccatggt gccactgct gcgcttgcca agcctcatgg gccccgacc 1680  
 ctctatgtcg cctgtctggt gctgaccagc ccggcagcca cgtcctctgg cagcctgttc 1740  
 ctgtggcggg agctgcagga ggccgcaactg tcaactggcg agggctggca gctcttctctg 1800  
 gcagcgctag cccagggtgt gctggagcac cacactacgg cgccctgtc tcccactgc 1860  
 tgtccctggg cctctacccc tgcctggctg ttttctggaa tgtgtctctc tggaaagtga 1920  
 atctgctgt cccggctggg acagagactc cccaaggacc ccattgtgcc tcttctctgg 1980  
 gaaataaatg agtgtgttca cc 2002

&lt;210&gt; 489

&lt;211&gt; 1590

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 489

atcagctttg cctgctggca tagctatttc tattctttgt aattcagctt ttgattcctc 60  
 attatccatt ctgccttcac ctccccact ctcaaaacag tatgttgggg taccacagcc 120  
 ttattgttag ttttcttctg tttagccttt tttttttgca tgctatcata aaaaaagaaa 180  
 gtcttatttt ggactctact tctgctaaat gaggattatg cttcatctgg cattcatagc 240  
 actttgtaac tggatcccaa gttccttttc cagcctcagc ctctgcccact attctgtgta 300  
 tgggtgcctc agtcactttg acttttttga cctttatttt cctgcctggc ccttttgttt 360  
 ttattgttct accttgaaac acacaagcac atgtgcatac acacacgtac atacacgtc 420  
 ttcaggggcag gaattacatc ctattcgttt ctgtatatct accctgtata cagcctggaa 480  
 cagaactttg cctgtaggca tttcaggaaat tatataacat aatacatgaa catgtaaaac 540  
 aaattgtact ttggggaaac tttcagaaac agaccagtgg tatggagtat aagaaaactg 600  
 atgcacctca accggatgtg aaggaagagg aagaagagaa ggaagaggaa aaggacaagg 660  
 gagatgagga ggaggaagga gaagagaaac ttggttaagaa acagagtcca gaaaatctgc 720  
 ttttaagcaa gaccctacga tgttggttaa cctttacagt caagttaagg attgttttta 780  
 gccaggcggt gtggctcaag cctgtaatcc tagcactttg ggagggtgag gcaggaggat 840  
 cacttgagcc caggagttaa aggtctgtagt cagccaggat agtgccactg cactccagct 900  
 gagcggcaga gtgagacct gtctctctct ctctctcttt tttatttttt aagacgggtg 960  
 cccactctgt cgctcaggtt ggagtgcagt ggacacgtca cagttcactg cagccttgac 1020  
 cttatagggt caggatgatc tcctacctca gcacctctc aagtagctgg gaccacaggc 1080  
 atgcgctacc atgctcagct gtttgtttgt ttgtttgttt attgatttat ttatttgata 1140  
 tggctctggc ctgttgccca ggctggagtg cagtgtgtgt atctcggttc actgcggcct 1200  
 ttgcctccca gattcaagcg attctcccac ctgggcctcc caagggtgtt ggattacagg 1260  
 cgtgagcccc ccgccccagc gagatcctgt ctcttaaaaa aaaattgtt gccagggtgcg 1320  
 gtggctcacg cctgtaattc cagcactttg gggggccgaa gcaggcagat cccgaggtca 1380  
 ggaggctcag gccatcctgg ctaacatggt gaaaccccat ctctactaaa aatacaaaaa 1440

```

ttagccgggc atggtggcag gtgcctgtgg tcccagctac tcaggaggct gaggcaggag 1500
aatcgctga ccctgggaag gcagagcttg cagtggccg agattgggcc actgcactcc 1560
aggctgggtg acagagcaag actctgtctc 1590

```

&lt;210&gt; 490

&lt;211&gt; 1578

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 490

```

ccacattcct cctctgaaga agcccctggg ccacagctca tcaccatgga ctggacctgg 60
aggttcctct ttgtggtggc agcagctaca ggtgtccagt cccaggtaca actggtgcag 120
tctggggctg aggtgaagcg gcctgggtcc tcggtgaagg tctcctgtaa ggcctctggc 180
cgcaacttta ctacttttgc aatcggctgg gtgcgacagg tcccaggaca aggacttgag 240
tggtatggag ggatcattcc catatatgac ataaggcaac acgcaccgaa gtttcaggcc 300
agagtacagg taaccgcgga cagagccacg agcactgtct acatggaact gccagcctg 360
acacctgacg acacggccgt ctattactgt gcgacaggac gagacgcctt caaccgcttt 420
gacatctggg gccagggaac cctggtcacc gtctcctcag cctccaccaa gggcccatcg 480
gtcttcccc tggcaccctc ctccaagagc acctctgggg gcacagcggc cctgggctgc 540
ctggtcaagg actacttccc cgaaccggtg acggtgtcgt ggaactcagg cgccctgacc 600
agcggcgtgc acaccttccc ggctgtccta cagtcctcag gactctactc cctcagcagc 660
gtggtgaccg tgccctccag cagcttgggc acccagacct acatctgcaa cgtgaatcac 720
aagcccagca acaccaaggt ggacaagaga gttgagccca aatcttgtga caaaactcac 780
acatgcccac cgtgcccagc acctgaactc ctggggggag cgtcagctct cctcttcccc 840
ccaaaaccca aggacacct catgatctcc cggacccttg aggtcacatg cgtgggtggg 900
gacgtgagcc acgaagaccc tgagggtcaag ttcaactggt acgtggacgg cgtggagggtg 960
cataatgcca agacaaagcc gcgggaggag cagtacaaca gcacgtaccg tgtggtcagc 1020
gtcctcaccg tcctgcacca ggactggctg aatggcaagg agtacaagtg caaggctctc 1080
aacaagccc tcccagcccc catcgagaaa accatctcca aagccaaagg gcagccccga 1140
gaaccacagg tgtacacct gcccccctcc cgggaggaga tgaccaagaa ccaggtcagc 1200
ctgacctgcc tgggtcaagg cttctatccc agcgacatcg cctgggagtg ggagagcaat 1260
gggcagccgg agaacaacta caagaccacg cctcccgtgc tggactccga cggtccttc 1320
ttcctctata gcaagctcac cgtggacaag agcagggtggc agcaggggaa cgtcttctca 1380
tgctccgtga tgatgagggc tctgcacaac cactacacgc agaagagcct ctccctgtcc 1440
ccgggtaaat gagtgcgacg gccggcaagc ccccgctccc cgggctctcg cgttcgcagc 1500
aggatgcttg gcacgtaccc cgtctacata cttcccaggc acccagcatg gaaataaage 1560
accaccact gccctggg 1578

```

&lt;210&gt; 491

&lt;211&gt; 1024

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 491

```

ggtagactga aggttagactg tggtaggggtg aagatgtata ctgccctagg gcaaccagta 60
gaataacaaa acagttatag ctaataagtc aacaaaggag ataagataga atcacaaaaa 120
aaatactcaa cccaaaagaa ggtggaaaaa ggaacaaata agtagtgaaa ctaatagaaa 180
aatggcaagg caatagactg taatcatatc agcaatcaca ttaaatgcat attatctaaa 240
tatccactt aaaaggcaaa gattgtcaga taaaaagcaa gactgctttt ggacctggat 300
gaacaggagg caccatcacg gaagttgact cctgccacaa caatgactga aaggttcaac 360
accaggaacc caagagccag gacatctact gaaggctgtt ggttaagctg tatatgtttc 420
tggccagaag aaactctacc ttcaaccaag ttgtggtgaa gaggttattt atgagttgca 480
ccaaatggcc atctctgtct ctttcctgga tgatctggaa gatgaagctt cctggccagg 540
aaaacaaaac agctgtggtt gtggggacca tgttcaggag gtgcccacac tgaagggtgtg 600
tgcactgcac atgagcagtt gggcctgcag ccaaattccc aaggctgggg acaagattct 660
cacctttgac cagctgaccc tggacacct caaaggctgt ggcaccatcc tgcctctctg 720
gcctcacaag ggccaagaag tgtactggca tttcagcaag gccctgggaa cccagcatag 780
ccacactaag ccctgtgtcc actccaggga ccagaaattc aagcacatca gaggtgatg 840
ggccagccaa ggctacaaaa actaaccttg gatcctctat cttattaaaa agattttggc 900
ctggggcgag tggctcatcc ctgtaatccc agcacttttg gaggccaaag agggcagatc 960
acttgagcct aggagttaa gaccagcctg ggcaacaagt gaaactccat ctctataaaa 1020
aatt 1024

```

&lt;210&gt; 492

&lt;211&gt; 1567

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 492

```

caagaaaaag agagggcatg ggttgaggag ccgacatcac ggccgggggc tttgctgttt 60
agacgcctgg gttcccggat ccagacacag cgcacgggca ggaagttaga ccggagacag 120
cgacgcctct gctggagtgc ctgctggcct tgtacttctt ctttctgatg gccatgcagc 180
tgaatgacaa gtggcagggc ttgtgctggc ccatgatgga cttcctgcgc tgtgtcaccg 240
cgccctcatc ctactttgct atctccatca cggccatcgc caagtactcg gatggggctt 300
ccaaagccgc tgggggtgtt ggcttctttg ctaccatcgt gtttgcaact gatttctacc 360
tgatctttta cgacgtggcc aaattcctca aacaagggga ctctgcagat gagaccacag 420
cccacaagac agaagaagag aattccgact cggactctga ctgaaggcct ggcggtgccc 480
ttggcaacct gagccacaca ggctccacc cctgcgcctc acaggggtcg ctggcggtgg 540
agcggaggcc tggacttctg agttgcagag ggggctgcgg acacagcagg cccctacag 600
cctcagggtc tgcctgagcc cagcctacca ggcttgcccc tcagctcagc actgttgacc 660
acgtgctgta tgagggcac ttgggtatcc cactccttct ccccatctct gtcccacagg 720
ccttcagccc tttaacgtct ctgccaaaa ccagcacaag gagacaaagc agagccttgt 780
ctgtatctgg gcagcaggtg ttccatgctg ctagggtggg ggggtcgggg gtcttctgtt 840
tactaacag gaacaaagac agaaaccatg acagggtgc cccgccaggc cccggtgggt 900
ttgtctgcac ttggtgctcc tgcccacacc agccactttg gtgacaatga ccttccaag 960
aatctttggg tcaaggagca ccagttccct cttcattctt gaagcaggga gaaattgacc 1020
tttgccttgt cgcccaggaa gtggggctcg gcaccataa ctaacacctc ccacccttgg 1080
aaacctatgt ttctgggggt gagatgacca ttctgggtct aagactgttt caaagaagag 1140
ctcatagact gactggtcca gaagacagag ggtacaacag tggcatcaca gtgacagtgt 1200
catggggagc tgggcggggc cagccaaacc ctctctcttc ctagagccca gccagcaggc 1260
aggagtctct ggaccctcag gacagtgaac ttccagacct cagggcaggc ctatgggcca 1320
ctgcaggaga tgagaccagc cttctgtgtt cncctaacga tttatactgt gtatctgtct 1380
ttgatggaaat tttgtaactt tttatatttt tttatgcaaa agcagcttct taacagatgg 1440
cattttctgt gactctaggg ctcacaaaag agccagagtt ctggaccatc gtttgagca 1500
ttttagtcct tattctcttg cgtgtgaatc tcttaccctg aaaaaagcc ataataatt 1560
agccat 1567

```

&lt;210&gt; 493

&lt;211&gt; 406

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 493

```

ttttgtgttt ctttgggatg ttcacaccta gaaccacaacc ctcatgttgt gagggagaa 60
aagcagcccc ggtgaaaggc cactggtagg tgttctggct gatgttccaa ctatgagcca 120
gcatcaacca ccagacatga tggtaagcaa gcttcagatg gtttcaacc ttagctgctg 180
gttgggttac ccctaaccct taacagtctt ctgagctgag gaactagaca tcgtgcagca 240
gagaaaagcc attccagttg caccctgtct gcattcctga gccagaaaat ctgtgagcag 300
aatgaaatgc tggctgtttt acaccattaa gtttgggggt atctgttaca caataatagt 360
tactggaaca aagttttcat ttctttacat atatacat ctaaac 406

```

&lt;210&gt; 494

&lt;211&gt; 939

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 494

```

cgtcacaaga gatgagttcc tcagaaggca gaagacggag accatcatct actcccagaa 60
gaagaacccc aacgcgttcg aatgcacgc ccctgccaa attgaagctg tggccgcca 120
gaacaagcac tgctgtctgg aggtctggat cggctgcaca agagacttga tcaagtccaa 180
catctacccc atcgtgctct tcattccggg gtgtgagaag aacatcaaga ggttcagaaa 240
gctgctgccc cggcctgaga cggaggagga gttcctgcgc gtgtgccggc tgaaggagaa 300
ggagctggag gccctgccgt gcctgtacgc cacgggtgaa cctgacatgt ggggcagcgt 360
agaggagctg ctccgcgttg tcaaggacaa gatcggcgag gagcagcgca agaccatctg 420
ggtggagcag gaccagctgt gaggcgggag ccctgggcag agagactctg tggcgcgggg 480
catcctatga ggcaggcacc ctgggcagag agatgcagtg ggtgcggggg gatcctgtgg 540
cccacagagc tgcccagca gacgtccgc cccaccgggt gatggagccc cggggggaca 600
gtcgtgcctg gggaggagca ggggtacagc cattcccca gccctggctg acctggccta 660

```

```

gcagtttggc cctgctggcc ttagcagggg gacagggggg caaagaacgc caagccggag 720
gcccagagcc agccggcctc tcgagagcca gagcagcagt tgaatgtaat gctgggggaca 780
ggcatgctgc cgccagtagg gcggggaccc ggacagccag gtgactacca gtcctgggga 840
cacactcacc ataaacacat ccccaggcag gacagatcgg ggaaggggtg tgtaccaggc 900
tatgtattct cttgcattaa aatgtattat tatttcttc 939

```

&lt;210&gt; 495

&lt;211&gt; 629

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 495

```

gtaaagagta gatgaacctc tgcttgagtc tcagatgcct gctgcccact tggttgctta 60
gtggatcggc tggctgtcaa cagtgtgaag ttatcaagcc taaatactta gttgggtcttg 120
actttttcac ctcgaccatg actcagtgtc atgtgtcctc agtcattcta tctgtggtcc 180
aacgttagcc tgggaagcac ctgggactga gggaagaacc ctgagctagt tattcagcga 240
tccaggttct cctcctgcct ttgatatac ctcatatat aaccttggga aacacttttg 300
tgtgactgga atgtggatac tcccagggga agggtaggag catggtaggg catttggact 360
ttatcatgaa ggtggttagga aatacttgaa gggttttaag cagggatgac acatcatcaa 420
atgtgtgttt tgaaaacttt tttctgcaga ggacagggcc acagcgcaag caggatcaaa 480
ccagtttaga gattgatgta acagtcccgt cagaaagtga tgaggtagct gggcgcggtg 540
gcctatgcct gtaatcccag catcgtggga ggctgagact ggcagatagt ttgagaccag 600
cccttggtgaa catggtgaaa ccccttctc 629

```

&lt;210&gt; 496

&lt;211&gt; 720

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 496

```

agaaaaagga aatccccctt tttcatgtat tccttggttt gaggacatga ctctgtgaag 60
gnagaggaaa gggagatgct tcctgtttga actgcagtga attcacggtt cctgtttcac 120
cactccaaac cttatggcga ctcacacaca cattcctctt ttctgttact gccaaagggt 180
cgggtttagt acacttcagt tccactcaag cattgaaaag gttctcgttg agtctggggc 240
gtgcccagtg aaaagatggg gactttttaa ttgtccacag acctctctat acctgctttg 300
caaaaattac aatggagtaa ctatttttaa agcttatttt tcaattcata aaaaagacat 360
ttattttcag tcaaatggat gatgtctccc tcttttcccc tattctcaat gtttgcttga 420
atcttttatt atttttttta attctcccc ataccactt cctgatactt tggttctctt 480
tcctgtcag gtcccttcat ttgtactttg gaggttttct catgtaaatt tgtataacag 540
aaaatattgt tcagtttggg tagaaagcat ggagaataaa aaaagatagc tgaaattcag 600
attgaagaaa tttatttctg tgtaaaagta tttaaaaact gtattatata aaaggcaaaa 660
aaagttctat ntacttgatg tgaatatgcg aatactgcta taataaagat tgaccgcatg 720

```

&lt;210&gt; 497

&lt;211&gt; 511

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 497

```

cttaccctct agaatttcta atttatgtgt tctgttgaaa tttttgtttt tttaccctta 60
ttgaacaac aaaaagtcag tattgaaaca tatcttctg ttttctgttg tcaaatgatg 120
ataatgtgcc atgatgtttt atatatatca ttcagaaaaa gttttatttt ttaataacat 180
tctattaaca ttattttgct tgccgctggc atgcttgagg aatgtatttg gctttgatta 240
cacactaagt ttttgtaata aatttgactc attaaaaacc tttttttttt aaaaaaaaaa 300
aaaagaaaat ctcattagtg aacttatctt tgcagctgag tacttaaat ctttttaaaa 360
agaaaccctt tggattgatc acattgtttg acccagtatg tcttgtagac acgttagtta 420
taatcacctt ggatctctaa atatgggggg agatgaacca gtccattcac attggaaaaa 480
ctgatgggtt taaataaact aattcactaa t 511

```

&lt;210&gt; 498

&lt;211&gt; 634

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

```

<400> 498
cgtgggggag gaggttgcag tgaactgaga tcacgccact gcactccagc ctgggcaaca 60
gagtgcagact cgtctcaaa aacaaaaccc acaaaactat ggcaattgtt aacatataat 120
aagcaaggat tatgagaata gtacttgggg tgggttaatt tagaaaaaag gctggataat 180
agccaataaa ttctctgcct ttttaagaga ccaggatcatg ctgtcaccca gactggagt 240
cgggtgcaca atcacaggtc actaaagcct tgatctcctg ggctcaagt 300
ctctgcctcc caagtancct ggatcacagg cgcgtgccac cacacatggc taactttctt 360
ttaatttttg ggagatgagt ctcaatgttg ctcaagctgg tcctgaactc ctggagccaa 420
aaaataatcc tcccaactca agcctctcaa aaantgenga nattaacagg cctgagatta 480
catgcccaga cttggatttt tttttttttt tttttttttt tttttgagac agagtctctt 540
ctgtcgccaa gactggagtg cagtgggtgca atctcgccct cccagggttca agcaattctc 600
ctgcctcggc ctctctaagt agctggctta gaaa 634

```

<210> 499

<211> 601

<212> DNA

<213> Homo sapiens

```

<400> 499
atattgttcag aatacattgg cagctgctag tggtttccct ggaagtggca gcagcagtga 60
gcagtcagca gatggatgat cagttgagtt tagctggagt ggggagcagg agccccagga 120
acaggggtgt tggctgagcc ccattctggg tcaggccctc cccctttgca gggcagccga 180
gggtcagatt tttgcaccaa ggagaactgg caggttctct cctcctgacg tacctcacac 240
ccagccggga agtcgatggg atgctgggac ctggggaacc aaggataggg gaaggagtca 300
gcacagtgaag agctgcctt tatccctgcc cacatgttcc ctctctcaca gttttccccc 360
cacagagccc ctttcantgg ccccttggtc ctcttaacta agctgtcacc taccatatgt 420
gggccttttt gttttataac aggagtattt tctctccagg tccaccccaa cctcccctga 480
tttatagcct gaagccttat ctttcacact agtgttggtc ccttcagggt tggcccatct 540
tgtattgtct ttctgttcat tcttncatca cagcaattta gtcactccct ggtcatcccc 600
c 601

```

<210> 500

<211> 773

<212> DNA

<213> Homo sapiens

```

<400> 500
tgcagatttt ggtattcaag cgagatgctt gaaccaatca cccatggata tctagggaca 60
gttatataat ggtgttgaag aactgacaaa acctggcagt ttgacacaga catatgggaa 120
aaattgaagg agtcaaaagg tcacttagtt catatcagaa atgaagtaag gaaggatgtt 180
gatttttggg gaacctgaag agttgaggta gtctagggtt gaagtaattg aaggatagcc 240
tagttaaaga attcttcagg gatttttagc gatatggttg tggtaattga gctaaatatt 300
ctgcaaaaaca gccatgctgt tgttttgaca acctctttta gaacaatttt ttttttttgg 360
cttccntttt ccccaagtta ccttgtctgt atgtattgtc tccattgatt ttagttttgt 420
cttgtggagt aattcagaaa gcgtttgata aaattttgtc tttcagcgtt ggaagagagt 480
tttgtctttc gtgaggagtt gggctntggc gaggggtggg gctcacgcct gtaatcccag 540
cactttggga ggcggaggga ggtggatcat atgaggtcag gaggtttgaga ccagcctgac 600
caacatgggtg aaacctgtc tctactaaaa atacaaaaat tagcggggcg tgggtggtgcg 660
cacaggagaa ttgcttgaac ccaggaggcg aaggttgcat tgagccaaga ttgcaccact 720
gcactccagc ctgggcgaca gtgagactct gtcccttccc ccaccccccc ccc 773

```

<210> 501

<211> 1605

<212> DNA

<213> Homo sapiens

```

<400> 501
cccttctcta cagaagcctc tgagaggaaa gttcttcacc atggactgga cctggagggt 60
cttctgcttg ctggctgtag ttccagggtc tcaactcccag gtgcagttgg tgcagtcagg 120
ggctgagggtg aagaagcctg gggcctctgt gaaagtttcc tgcaaggcat ttggatatac 180
cttcaacaac tactatatgc actgggtgcg acaggccctt ggacaaggac ttgagtggat 240
gggaatcagc aacgttaatg tgggtggctc aaatttgcga cagaagtttc agggcagagt 300
caccgtgacc agtgacactt ccacgaacac gatctacatg gaactgagca gcctgagagc 360
tgaggactcg gccgtgtatt tctgtgcgag agcggggacc agtaggacgt acagtactca 420

```

```

ggtttatgac aacaacatag acgtctgggg cacagggacc acggtcaccg tctcctcagc 480
ctccaccaag ggcccatcgg tcttccccct ggcaccctcc toccaagagca cctctggggg 540
cacagcggcc ctgggctgcc tgggtcaagga ctacttcccc gaaccggtga cgtgtcgtg 600
gaactcaggc gcctgacca gcggcgtgca caccttcccc gctgtcctac agtcctcagg 660
actctactcc ctccagcagc tgggtgaccgt gccctccagc agcttgggca cccagacct 720
catctgcaac gtgaatcaca agcccagcaa caccaagggt gacaagagag ttgagcccaa 780
atcttgtgac aaaactcaca catgcccacc gtgcccagca cctgaactcc tggggggacc 840
gtcagttctc ctcttcccc caaaacccaa ggacaccctc atgatctccc ggaccctga 900
gggtcacatgc gtgggtgggtg acgtgagcca cgaagaccct gaggtcaagt tcaactggta 960
cgtggacggc gtggaggtgc ataatgccaa gacaaagccg cgggaggagc agtacaacag 1020
cacgtaccgt gtggtcagcg tccctaccgt cctgcaccag gactggctga atggcaagga 1080
gtacaagtgc aagggtctcca acaaagccct cccagccccc atcgagaaaa ccatctccaa 1140
agccaaaggg cagccccgag aaccacaggt gtacaccctg ccccatccc gggaggagat 1200
gaccaagaac caggtcagcc tgacctgcct ggtcaaaggc ttctatccca gcgacatcgc 1260
cgtggagtggt gagagcaatg ggccagcggg gaacaactac aagaccacgc ctcccggtgt 1320
ggactccgac ggctccttct tctctatag caagctcacc gtggacaaga gcaggtggca 1380
gcaggggaac gtcttctcat gctccgtgat gcatgaggct ctgcacaacc actacacgca 1440
gaagagcctc tccctgtccc cgggtaaatg agtgcgacgg cgggcaagcc cccgtcccc 1500
gggctctcgc ggtcgacga ggatgcttgg cacgtacccc gtctacatac ttcccaggca 1560
cccagcatgg aaataaagca cccaccactg ccctgggaaa aaaan 1605

```

&lt;210&gt; 502

&lt;211&gt; 1464

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 502

```

ccttgtgtgt gctgggctct gaagtcctgg aggcactcgc tggggctgcc cctcacagcc 60
tcttcttcaa ggacgctctc cgtgaccagg gtgtgcttgc gtctccacag ctttgatgca 120
ggggcgactg atccgtgccc atagaatacc tcttgtggcc tctggatgcc tcttgttgc 180
ttggacgctg ccggcacctt cacggagccc atcacagaca tggcccatgt accagcctcc 240
agccttcact gaccctgtag cagccacctg ggcagaacca gctccatgga gatgctgtgc 300
tcactccaga attgcctgct ggtggcacc cactactgctg cagactccac aaacaaacca 360
aaagctagaa tattataaat gcgtatactt agatcagcca gccctttttt ccagggatca 420
aactaaaatc ctgcctcagc tatctttttt aatttttatt gagtataat tcacatgcca 480
cataatttac cctgtgtgga ttgacttgaa tctcacattt gagtgtttt ttagcttagc 540
tcattggggt caggagtgtg cacacacaat gaacgtgctg ctggacacag tcccataact 600
gcaccttcac ctgcatgact cgaggggtag caaaggagac tgccattatg ggcacaattc 660
actttttctt caaggcttca ataacctgaa gtgtctctgt cggcaggctg gattgtttgt 720
gctgaacgaa ctgtcctctt gcttcagaag ccccttttga gtgtggtctc tgggtgcaagt 780
tctgtgagc tgcttgccc ggtgatgctc gacagcctgg actctgcaac acctgtcaac 840
tccatctgca gtgttcaaga gctacgaagt gaagagtgtc ctcgaaagg aagtggggtt 900
gttaaatgt tttgtccagt ccgtaaccgc ccaccgacc agctgcattg gattggagga 960
aatcgagctt ctgagtgcag gaggggcctc tgcagaacac tagcggttgc cgcaggatct 1020
gtgaactttg caatgtggct gcaagggtgg tgggtgggtt ggtgatttgg ggtagttatt 1080
tgttaactat ggacacagtg aacgtagttt acgatcttga aatgaaactt agatttttct 1140
ggggaatgt tcagatacag ttttgtgaac tgtaaatcaa aatacctttt tctacagttt 1200
atcttttatt ttctgcaaat ttaggaacat atttactcgt ttccacattg aatcttaagt 1260
ttaagctctt catttgggtat ttaggcaata tatgagaaaa aaattttttt tgttcatttg 1320
taattttaac aagttgaaca ttttaccatg attgaacatg tttttattac agtatttaac 1380
attcccccaa agaataacct gcaaagtgtg aacctttgtc ccatactgtg atattactgt 1440
totgtacaa taaatgtcaa acct 1464

```

&lt;210&gt; 503

&lt;211&gt; 2174

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 503

```

atttaaggcc catctggcac ccatggtttc catgctactt atcacctca ctcaactcatg 60
agccgctgtc aataacctcc tctdactttt tcatgatctt tgctctctcc ttggaatttt 120
cacctgaata tttttgcagc tcataccaca caattcatac attctaagt tacaattcag 180
tgttttttag tatgttcaga gttgtacaac cattaccaca actttagaac atcgtttgtt 240
acctcaaaat gaaatgccat acccttttct tcccactcc aatccgtcca tctctcctag 300

```



```

ccctaagggt tttatagttt ggctcttaca tttatatctt tgatccattt tgagttaatt 360
tttgtatgtg atatgagcta aggattcagt tttattcttt tgccctgtgc tgctcctgtg 420
ttccagcacc atgtgtagaa aagactgttc tctttttatc aaatgggtctt ggcactcctg 480
tcaacaacca attgacagca gatatatagt tttatttttg tactttcaat gctatttcac 540
ttattttatat gtctatcctt atgcgagtag cacactatct ttagtactgt tgctttgtag 600
taagttttta aattggggca tgttagtttc aactttgtta ttctttttca agattgtttt 660
agctattttt aggcctgtga gtttccaaat gaattttaga atcagcttgt taattttatac 720
aaagaagcca acttgtgttt tggtagaaat tgcaccgaat ttgtagatta ttccagggat 780
tatcataatc tcaacaatat gaaggcttca gttcagatcc atgaacatgg gatatttttt 840
ccattttatt agatcttcga tttctttcag taatgttttg tagatttcag agtttttgat 900
acttttgcta aattttttcc taagcatttt attacttttg ttgctattat atatgaaatt 960
attttcttaa ttttactttt ggggtgttgg ttgctagtat gtgggaagac agtggatact 1020
gtattgattt tatattttac aaccttatga actcagttat tctcattgtt ttttagtgga 1080
ttccttagaa ttttctcttt atgagagctg ttttacctcc tcctttccaa tctggatgtc 1140
tttaattttt ttttcttggc aattactttg gctgcaactt ctagtacagt gtggaatata 1200
gatggcaaga gcagacatcc ttgtcttaaa tcttaagggg aaagcatcca gtcattcacc 1260
atagaatatt atgttatctg taagattttt ttgtgtaaac cttgtcagat ttacaaaatg 1320
cccttctatt ttttgtttgc agaattgatt atcatgaaat gttgaattgt gtcaaatgcc 1380
ttttctatgt ctatgtggct tttatttttt gtatcttctt ttttatatat ttctggattt 1440
catttgtagt tattttactt aaaatttttc caggttcagt agggatatta gttttagt 1500
ttcttctggt attatagtat ctttgtatag ttttgtttc aggactatcg agtctcataa 1560
aatgagtaaa atttgatagt ttttcttttt tgaatgtttg aaaaaattca ttattgacgc 1620
catctgggtc ttgaattttc tttgtgggaa agttttgaat tatgaattga gttttttgat 1680
ataaggctct tcagattttt tgtttctctt agagtctttt ggtaattctc atgtcttaaa 1740
aatgtacatt ttggccgggc acggtggctc acgcctgtaa tcccagcact ttgagaggct 1800
gaggcgggtg gatcacctca gttcgggagt tcgagactag cctgaccaac atggagaaac 1860
cccactctca caaaaaatac aaaattagcc gagtgtgggt gtgcacacct gtgatccag 1920
ctactcggga ggcgtaggca ggagaattgc ttgaaccag gaagtggagt gagctgagat 1980
cacaccattg cactccggcc tgggcaacaa gagtgaact ccatctcaa agaaaagaa 2040
aaagaaaatg tgtagtccca gctactcagg aggctgaggc aggagaatgg cgtgaacctg 2100
ggagccggag cttgcagtga gccgagattg cgccactgca ctccagcctg ggcgacagag 2160
cgagactctg tctc 2174

```

&lt;210&gt; 504

&lt;211&gt; 1460

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 504

```

atctgctcgc ggcgcgcgct cctgctcctc ccgctgctgc tgcgcgtgcc gccctgagtc 60
actgcctgcy cagctccggc cgccctggctc cccatactag tcgccgatat ttggagttct 120
tacaacatgg cagacattga caacaaagaa cagtctgaac ttgatcaaga tttggatgat 180
gttgaagaag tagaagaaga ggaaactggt gaagaacaa aactcaaagc acgtcagcta 240
actgttcaga tgatgcaaaa tcctcagatt cttgcagccc ttcaagaaag acttgatggt 300
ctggtagaaa caccaacagg atacattgaa agcctgccta gggtagttaa aagacgagtg 360
aatgctctca aaaacctgca agttaaatgt gcacagatag aagccaaatt ctatgaggaa 420
gttcacgatc ttgaaaggaa gtatgctgtt ctctatcagc ctctatttga taagcgattt 480
gaaattatta atgcaattta tgaacctacg gaagaagaat gtgaatggaa accagatgaa 540
gaagatgaga tttcggagga attgaaagaa aaggccaaga ttgaagatga gaaaaaggat 600
gaagaaaaag aagaccccaa aggaattcct gaattttggt taactgtttt taagaatgtt 660
gacttgctca gtgatatggt tcaggaacac gatgaacctt ttctgaagca cttgaaagat 720
attaagtgga agttctcaga tgctggccag cctatgagtt ttgtcttaga atttcacttt 780
gaacccaatg aatattttac aaatgaagtg ctgacaaaga catacaggat gaggtcagaa 840
ccagatgatt ctgatccctt ttcttttgat ggaccagaaa ttatggggtg tacagggtgc 900
cagatagatt ggaaaaaagg aaagaatgtc actttgaaaa ctattaagaa gaagcagaaa 960
cacagggac gtgggacagt tcgtactgtg actaaaacag ttccaatga ctctttcttt 1020
aacttttttg cccctcctga agttcctgag agtggagatc tggatgatgn tgotgaagct 1080
atccttgctg cagacttcga aattgggtcac tttttacgtg agcgtataat cccaagatca 1140
gtgttatatt ttactggaga agctattgaa gatgatgatg atgattatga tgaagaagg 1200
gaagaagcgg atgaggaagg ggaagaagaa ggagatgagg aaaatgatcc agactatgac 1260
ccaaagaagg atcaaaaacc agcagagtgc aagcagcagt gaagcaggat gtatgtggcc 1320
ttgaggataa cctgcactgg tctaccttct gcttccctgg aaaggatgaa ttacatcat 1380
ttgacaagcc tattttcaag tttttgttg tttgtttgct tgtttttggt tttgcagcta 1440
aaataaaaat ttcaataact 1460

```

<210> 505  
 <211> 1563  
 <212> DNA  
 <213> Homo sapiens

<400> 505  
 cagctcatca ccatggactg gacctggagg ttctctcttg tgggtggcagc agctacaggt 60  
 gtccagtgccc aggtccagct ggttcaatct ggggctgagg tgaagaagcc tgggtcgctg 120  
 gtgaaggtct cctgcaaggc ttctggaggc agtttcaata gttatagtat cagttgggtg 180  
 cgcaggcccc ctggacaggg gcttgagtgg atgggaaggc tcatccctgt ccttaacatt 240  
 gcaaatatcg cagagaagtt ccacgacaga gtctcgatca ccgcgacac atcaacgacc 300  
 acagcctaca tggaaactgag cgtcctcaga tctgacgaca cggccgtgta tttttgtgtg 360  
 agagacccat tttgtactat agccagctgc tatattgagc gaaacttcta ctacggaatg 420  
 gacgtctggg gccaaaggac cacggtcacc gtctcctcag catccccgac cagccccaag 480  
 gtcttcccgc tgagcctctg cagcaccag ccagatggga acgtgggtcat cgcttgctg 540  
 gtccagggtt tcttccccca ggagccactc agtgtgacct ggagcgaaag ggaacagggc 600  
 gtgaccgcca gaaacttccc acccagccag gatgcctccg gggacctgta caccacgagc 660  
 agccagctga ccctgccggc cacacagtgc ctacccggca agtccgtgac atgccacgtg 720  
 aagcactaca cgaatcccag ccaggatgtg actgtgccct gccagttcc ctcaactcca 780  
 cctaccccc ctccctcaac tccacctacc ccatctccct catgctgcca cccccgactg 840  
 tcaactgacc gaccggccct cgaggacctg ctcttaggtt cagaagcgaa ctacgtgca 900  
 caatgacagg cctgagagat gctcaggtgt caccttcacc tggacgccc caagtgggaa 960  
 gagcgctgtt caaggaccac ctgagcgtga cctctgtggc tgctacagcg tgtccaggt 1020  
 cctgcccggc tgtgcccagc catggaacca tgggaagacc ttcaactgca ctgctgccta 1080  
 ccccgagtcc aagacccgc taaccgccac cctctcaaaa tccggaaca cattccggcc 1140  
 cgaggtccac ctgctgccgc cgcgctcgga ggagctggcc ctgaacgagc tggtagcgt 1200  
 gacgtgacct gcacgcggct tcagcccaa ggacgtgctg gttcgctggc tgcaggggtc 1260  
 acaggagctg ccccgcgaga agtacctgac ttgggcatcc cggcaggagc ccagccaggg 1320  
 caccaccacc ttgcgtgtga ccagcactat gcgctggca gccgaggact ggaagaagg 1380  
 ggacaccttc tctgcatgg tgggccacga ggccctgccg ctggccttca cacagaagac 1440  
 catcgaccgc ttggcgggta aaccaccca tgtcaatgtg tctgttgtca tggcggagg 1500  
 ggacggcacc tgctactgag ccgcccgcct gtccccacc ctgaataaac tccatgctcc 1560  
 ccc 1563

<210> 506  
 <211> 1423  
 <212> DNA  
 <213> Homo sapiens

<400> 506  
 ggattgtttg aggccaggag ctgagacca gctggccaa catagcaaaa cctgtctgt 60  
 actaaaaata caaaagttag ccaggcatag tggcaaacgc ctataatccc agcaacttg 120  
 gaggtgagg cacaagaatc gcttgaacc aggcggcgga ggttgagtg agctgagatc 180  
 gcgcactgc acccagcct gggcaacagg gtgagactca gtctcaaaaa aagtcagctt 240  
 tgatgacctt agtaagccct gaatcgactc cacctaacct tgcgtgggtcc ctttctgca 300  
 cttctggctc ttggcaacac tttctagcct cagcatcctt agctgtgttg ctccggttgc 360  
 tagacatcac tgtgagctcc tgccgtatgc tgcctgccct gaaggacgtt ctttgaggcc 420  
 tcccctgtgt tgtcctccct tagccccacc cgaatgagag ttctctccct tgtaccttcc 480  
 gtgggtccct tttgtgaccg ctgtacctag gaagcgctg gtaactgggc tcagtgatga 540  
 ggagagactg ccctgggccc aaagagctac accttccctc tttccccctt gttatgtgt 600  
 cttcatccag gagcttttgc tgtatttcag taggtgcctc cattctagga ggcttttatt 660  
 ccccttttac aagtgaggaa accaagacc acagaaatag agtaacttgc tgaagtctca 720  
 tagttggtgg gcgcagagct gaggtcacac ctgcctcctc ctgcccaga gccctgctgt 780  
 tccagatggc ctgctgggca cctctcccag agcagcacc gccagtggt tctggaatga 840  
 atgctgagtg gctcggacac ttacttgttc tctgtccct tgtttctttt cttcctctga 900  
 aataagtgt agtctatctt agtagaatgc taatggcaat gcagtctaaa ttgatgagaa 960  
 cgaagtttta gagtaaaatc cactcctgaa agatccagaa ttccctgact gtcacttatt 1020  
 gacctgcaact ggcctgtttt tttttgttt ttgtgttgt tgtgttttt tgcactaaa 1080  
 agattctccc tgggcaagac ccctccacct ccattctgaa ctttaaaaca actttccagg 1140  
 ccgggtgacg tggctgacgc ctgtaacct agcacttttg gaggtgagg cgggtggatc 1200  
 acctgaggtc aggagtttga gaccagcctg gccacatgg tgaagcctcg tctctactaa 1260  
 aaatacaaaa cattagcctg gcgtcctggc ggacgctgt ggtcccggcc actcgggacc 1320  
 ctgaggcagg ggaatcgctt gggcccaggga ggcggagggt gcagtgagcc gagatcgctc 1380

cactgcacac tccagcctgg gcaacaaagt gacactacgt etc

1423

<210> 507

<211> 1576

<212> DNA

<213> Homo sapiens

<400> 507

```

ccaccagct gggatctcag ggcttctctt tctgtctctc tccaggatgg ggtcaaccgc 60
catcctcgcc ctccctcctgg ccgttctcca aggagtctgt gccgaagtgc agctggtgca 120
gtccggagca gaggtgaaaa agcccgggga gtctctgagg atctcctgtc aggggttctgg 180
atacaccttc accagttacc ggatcagctg ggtgcgccag atgcccgga aaggcctgga 240
gtggatgggt aaaattgatc ctgctgactc ttacacgtcc tacgacccgg ccttccaagg 300
ccacgtcacc atctcaattg acaagtccat cagcactgcc tacctgcagt ggagtagctg 360
aaggcctcgg acagcgccat ttattactgc acgaagagcg ctacagtatt acgatatttt 420
gactgggggtc aggggaccct ggtcaccgtc tctcagcct ccaccaaggg cccatcgggtc 480
ttccccctgg caccctctc caagagcacc tctgggggca cagcggccct gggctgcctg 540
gtcaaggact acttccccga accggtgacg gtgtcgtgga actcaggcgc cctgaccagc 600
ggcgtgcaca ccttccccggc tgtcctacag tctcaggac tctactccct cagcagcgtg 660
gtgaccgtgc cctccagcag cttgggcacc cagacctaca tctgcaacgt gaatcacaa 720
ccagcaaca ccaagggtga caagagagtt gagcccaat cttgtgacaa aactcacaca 780
tgcccaccgt gcccagcacc tgaactcctg gggggaccgt cagtcttctt cttcccccca 840
aaaccaagg acaccctcat gatctcccg acccctgagg tcacatgcgt ggtggtggac 900
gtgagccacg aagaccctga ggtcaagttc aactggtagc tggacggcgt ggaggtgcat 960
aatgccaaga caaagccgag ggaggagcag tacaacagca cgtaccgtgt ggtcagcgtc 1020
ctcaccgtcc tgcaccagga ctggctgaat ggcaaggagt acaagtgcga ggtctccaac 1080
aaagccctcc cagcccccat cgagaaaacc atctccaaag ccaaagggca gccccgagaa 1140
ccacagggtg acaccctgcc cccatcccg gaggatga ccaagaacca ggtcagcctg 1200
acctgcctgg tcaaaggctt ctatcccagc gacatcgccg tggagtggga gagcaatggg 1260
cagccggaga acaactacaa gaccacgct cccgtgctgg actccgacgg ctctctcttc 1320
ctctatagca agctcaccgt ggacaagagc aggtggcagc aggggaacgt cttctcatgc 1380
tccgtgatgc atgaggctct gcacaaccac tacacgcaga agagcctctc cctgtccccg 1440
ggtaaatgag tgcgacggcc ggcaagccc cgtcccccg gctctcgagg tcgcacgagg 1500
atgcttgcca cgtaccccg ctacatactt cccaggcacc cagcaggaaa taaagcacc 1560
accactgcct cctggg 1576

```

<210> 508

<211> 215

<212> DNA

<213> Homo sapiens

<400> 508

```

agtgaagg ggtgaaataa tctgtgtagc agtattatga aaatagcttg acctcgtgga 60
cttctcaga ggggtgggtc ctggatcaca ctttgagaac catacttgtc ctgaagtatt 120
ggagttcatg tctaacttct tcccagggca ttatgtacag tgctttttat tactgtgggg 180
agagggcagt gctaaataaa ttaataccta ctgat 215

```

<210> 509

<211> 1482

<212> DNA

<213> Homo sapiens

<400> 509

```

attctgtgct gtcaatccat tgtgaacact gattattcaa agaaataata gttattttaga 60
tttaaaatat tttaagttaa aaataatagg ttattaagat agctatttat taatggcctg 120
atattattaa attagtcatt taaaatatta tcaaataata aagcagtgtc tgaattattt 180
ctcctaaatg ttcatttgag gcagtaagg gattgcctgc ttttctcttc ttactcttt 240
ttataggat tgatgatatt gatggaattt ggaacatgag ccattaaata cctagaaaaa 300
aattccatag ggttttaggt aattgaagca aaattaatat tgctactttt agtaggagac 360
tatcttattt tgcctttgtg aggcagaatc tttttcctgt ttgttgagc cactggccac 420
cagggtggtc tttttgcatt ctttacagaa taacacgacg gtttttctc tggttactgt 480
cagacattgt catatttagc taattaaaat ttccaatgac aaatataatg taggaagtta 540
gaactaatat gaaacttctt gctgtggtag atagctgttc aaagaaggaa gagtttgta 600
ctgaatttgt tggatccac tgagctttag tgttgtctgc tttctctct ctgattctta 660

```

```

ggctatgggtg gcagatagtt tcttgcagtt gccagcaact aggttctcag attattcag 720
gtcctcagta tatagaacct ttggacttgt ccacctcagt gctaaacatt ttatctttta 780
ttgggtgctt atttcaatgc cttatctgaa atttatctga aattgtctcc tagaatctat 840
atgggtccaa gaaaaaaagt aaccttattt ataagatttc tcttttctcc ctaaaagcca 900
tagtagaaga ataaaaatgt ttgtttgaag tgtccttcca tagggatttt ttccttatcg 960
ttatctactg tttttattac ctttagcact ctgggtgtcc agccaactca tcttaagtcc 1020
aaggaaatcag ttttttgcag tttcttcatt ttgttctga tggctttttt taaaagtata 1080
atcccagctt ggttctgttg ttttaaggaga gctaaactta taatttaa atctgcagata 1140
tacatatatt aagttttaat aactcactaa aattgttttt taaacaaaga atacagtttt 1200
tccggccggg cgcgtgtggt caagcctgta atcctagcac tttgggaggc cgaggcaggc 1260
ggatcacgag gtcaggaggt cgagaccatc ctggctaaca cagtgaaccc ccatctctac 1320
taaaaataca aaaaatttagc caggcgtggt ggcaggcacc tgtagtccca gctactcagg 1380
aggctgaggc aggagaatgg cgtgaaccgc ggaggcgggt cttgcagtga gccgagatgg 1440
cgccactgca ctccagcctg ggtgacagag cgagactccg tc 1482

```

&lt;210&gt; 510

&lt;211&gt; 1403

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 510

```

gagtcaggga gttcaagacc agcctgggta acatggcaaa acctcatctc tacaaaaaaa 60
aaaaaaaaat ctttttaatt agctgggcaa ggtggcacac acctgtagtc ccagctactc 120
aggaggctga ggtggaaaga tgagcctggg aggcagaggt cgcagtgagc caagagtgc 180
ccactgcact ccagcctgga caacagagac cctgcctcaa aaaaaaaaaa aagaaaagga 240
aagaaaagaa aagaaatagg ctccctcagg atggttcatt ggggtgcagct ccttgggtgc 300
acctcctctt gaactagagg cctgtgagct gaaaaattgt ttcttccctg ctgccaacag 360
tcagtgatga aacagggact gaacaactac tatagacact tccattcaaa cggggaaaaa 420
ggaagcagca gtcactcatt tatagcaatt ctgaaatcca gtcaagcaca tgttgctagt 480
tcccccta atcccaggcag gaaattttcc ttgatacatg atttatatgt atgatacacc 540
tctaattccc atccatccc atcctacccc acaggcttct tccctgtctt cgtcggttct 600
gtattgggtg ctcccttctc caacagtatt atttactcac ttgctcaatc cccagggtaca 660
acaataaaag ttaacagaat ttcaacactc agaccactat gaaaaacaaa ctaagttgat 720
ttctaatttt ctgtggagtt tatttttgtt tttagattta tataccattg cagagggtat 780
ttaatgtacc attgcagagg attttacatt tgtatttata aatgagattg gtctatagtt 840
tttacacact gtcatagtca gatttacggt tatcctacct cggtaaaata acttgtaaaa 900
ttttctacct tttaatatat tctggaataa tttatagtgt tttaaattaa ccaaaagtgt 960
gtgaccagga gttcactgga gagacagtgg tgaccacatt atctgcttcc tttatgggtt 1020
ttaggctatg cagatattct gttgggtttt gagacagctc tgcctttatg tttttctaag 1080
aagtcactta tttcatttgt ggttaaaagt aatatagggt gtctgcccagg cgcagtggct 1140
caggcctgta atcccagcac tttgggaggc tgaggcaggt ggatcgcgag gtcaagagat 1200
cgagaccagc ctgaccaaca tggtgaaacc ccgtctctac taaaaatata aaaattagcc 1260
aggcgtgggt gcggggcgct gtagtcccag ctactcagga ggctgaggca ggagaatcgc 1320
ttgaaccggg gaggtggagg ttgcagtgag ccgagatccc accactgcac tccagcctgg 1380
gcaacagagt aagactctgt tcc 1403

```

&lt;210&gt; 511

&lt;211&gt; 1875

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 511

```

atatttttgg agagttgatt ctgcaacttg ctttctcctt gtattttcag gggcgtctgc 60
cttgatata aaatcataga tgggtgtgtt gctaagaaaa agctctttgc aaccagtatt 120
aacaccacac tccatgtgac atgtcttctt gtcatttttc attgtccttt gaccaggtgg 180
gctggatgac actttgcaca caattattga ttatgcctgt gagcagaaca ttccctttgt 240
gtttgctctc aaccgcaaag ctctggggcg cagtttgaat aaggcagttc ctgtcagtgt 300
gggtggggatc ttcagctatg atggggccca ggtgagtgc cagggcacag gcctcttcag 360
tcaactgccg tgggaggaag tgggggcagg tggtcagtgt gggctcacc acagagcagc 420
cccagaacct ccagtaggct gtcattgagg aggagccacc acttaggcag aaccttctta 480
taaaaaagta gcctttgtct ccttgacatc atgggttgtc tggttctgaa ctgagctctg 540
ttctgggctt gctgctgaca tagtggcac tcaggcaggc ccaagaagtc ggcctagccc 600
actcttctct ctggggcagc atccttggtg cccaccata agcatgaggt ccacattacc 660
ccatgtcacc cctgcttctc tgtggagggt gccattgctg agtttgaggg acccgtgtcc 720

```

```

tctgtagctg ggaatgttacc tgtgtgctct cacttgtgcc caaggatcag ttccacaaga 780
tggttgagct gacagtggcg gcccagacag cgtacaagac catgctggag aatgtgcagc 840
aggagctggt gggagagccc aggcctcagg cacctcccag cctaccaca cagggcccca 900
gctgccctgc agaagatggc cccccagccc tgaaagaaaa agaagagcca cactacattg 960
aaatctggaa aaaacatctg gaagcataca gtgggatgta ccctggagct agaagaatcc 1020
tggaggtcga acctctcaaa tgatgaattt gaatttatga gagttcttgc ctgtgtgtct 1080
gtattttggg taaggagggg aggtctgaaa aagactttgg ggctttttct tctgtttttc 1140
atgacaatgt aatttgtgta actgttgaat ctggaaattg atcagcatta aagggccatc 1200
gaagcagtggt ctgcaggcgt tcagtgtctgc ggagcctggt aaaggtcact cagatgtgca 1260
gggtgttaate ttctctaaaa gcctgggtgat acagctctgg ctttctgagc acactacgga 1320
tctggaaaat actggaaaat gtgatactta gaatactttg gctgctaagg aaacttcctc 1380
tccattgcag aatagctgag ccaagtgagt gattttgcag aaagcaggtg gtgagctcct 1440
gcctgctgga ggttgccatg gagggccatt cctgcccggc aacagcaccg tcctgcaggg 1500
agccacttgg cagaaggggt cagggctgct ggtgtcagag caagagggct acagggaaag 1560
ggccctttct caggggatgt agctttttta aaagatttgg gaacacttgg aggatttgc 1620
aaaatgagcc tcagaaggaa aattggtttt ctacactgtg actttttgaa atgaattatt 1680
cctttcagtc tttatttttc aaagaaacaa tgtgtattga agtacctaga tttgtttgat 1740
aatcaacaaa tctttccttt ttcaatgaac atattctgaa tgtggtttct gtcttagacc 1800
aggagagcag agtttgcttt catattttcc ctgtaagtaa gagggcctat ttatttttaa 1860
taaagagtaa ttatc 1875

```

&lt;210&gt; 512

&lt;211&gt; 1426

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 512

```

ctatgatgct gtatttgatc actcctatcc taaccagag tacgacaact ggtgcaaa 60
aactcaagt caaaggaaac ggcagcaaga acttgccaaa tctatggcca tatectgtc 120
taaaatgtat attgaacaaa atgcatgctc ttgaaatgtc tcaaaacctt acacctggg 180
aataattgca tatataactt gtgtttggag aatcacatga actttaatca gggtaatagc 240
actttcaaac ttgctagtag attttactgt aggtgtaatg ccttaatcat ctttttgaat 300
gtttttctcag agctggaggt tgctgggcac cttaatgatg tttcatgata gctttgggtg 360
attttactgc tatttataat ttgctgtata aagtgaagat tacttaattt gcaagctgat 420
ttctcacagt gtaaatgtgt tcattcctgg tagtctatct tctataaaaa tgtatttttg 480
cacaacattt ttaaaaactg gtgtaccttc atctatgacg tgttccattt tgacaaacag 540
ctttcagggc taaatccaga gaagtgcctt atatgaaatg tattattttg aacagagttt 600
gtgatttggg agttatttta tgttgttgaa atttgaattt cacaattctt agataattat 660
ttcaaatgga tattgatgca ttcttggttac cagatgtttg gccattcca ttttgatgaa 720
acagagctgt tgttttgga gtcattatct ttctagaaat ggcaaatctt ttaaagaaaa 780
ttactaaatg gaaggttgtg ggaaggtgtt tttttgtgtt ttttttttgg tttttgtttt 840
gtttttcctc ttttaaggga tagtagcagg tcttacttga atgaaagtct gatatttgc 900
gatggcagaa gtattattct gtaccctggt tgatgtgtag agtagattgt ctggtgctct 960
cagttgtttt tatttacatt tgtcacgttg ttgtaagaga atgttaacat ggtataaaac 1020
tctgtgacaa gataagcctc ctgctttata taacttcttg aatccagcta agagatttat 1080
aaactaatgg cataaatgtc tggagccaac cttggcagtt atagcaggag aacactgtct 1140
taatatttct ttacattctt tcaaaaggca aaataggatt gcctgtatt gatgtagaaa 1200
tgtctgtaaa cagagcttgt atggtttgcct ggggtcaaca atgtttccaa cttaaaatca 1260
atctcattgc cactttaact acttttagtc atatttatta agtaatgcag tttgtacttt 1320
ttttattttg taacattttg tgattttttt gtacaaaact gtatttgtac aatagagcaa 1380
ttccagctg atggaatgaa tgaataaaat gcaaaattat actttt 1426

```

&lt;210&gt; 513

&lt;211&gt; 1617

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 513

```

caccgctcct tgggagaatc ccctagatca cagctcctca ccatggactg gacctggagt 60
atccttttct tgggtgcagc agcaacaggc gccactctc aggttgaatt ggtgcagtct 120
ggatctgacg tgaagcagcc tggggcctca gtgaaggtct cctgtaaggc tttctggttat 180
cccttttagta attttgggtat tagttgggtg cgccaggccc ccggacgagg gcttgagtgg 240
atggcatgga tcagaggcaa caatgaaaat acaaagtatg cacagaagtt taaggggaga 300
gtcactttga ccacagtcac atccacgagc acagtttaca tggaggtgag gagcctgaca 360

```

```

tttgacgaca cggccgttta ttactgtgcg agagatgaag ggccgctagg acactgtact 420
attgagaact gccactattc ctactactat aactcaatgg acgtctgggg ccaagggact 480
gcggtcaccg tcttctcagc ctccaccaag ggcccatcgg tcttccccct ggcaccctcc 540
tccaagagca cctctggggg cacagcggcc ctgggctgcc tggtaagga ctacttcccc 600
gaaccggtga cgggtgctg gaactcaggc gccctgacca gcggcgtgca caccttcccc 660
gctgtcctac agtcctcagg actctactcc ctgagcagcg tggtagccgt gccctccagc 720
agcttgggca cccagaccta catctgcaac gtgaatcaca agcccagcaa caccaagggtg 780
gacaagagag ttgagcccaa atcttgtgac aaaactcaca catgcccacc gtgcccagca 840
cctgaactcc tggggggacc gtcagtcttc ctcttcccc caaaacccaa ggacaccctc 900
atgatctccc ggacccttga ggtcacatgc gtgggtgggg acgtgagcca cgaagaccct 960
gaggtcaagt tcaactggta cgtggacggc gtggaggtgc ataagtccaa gacaaagccg 1020
cgggaggagc agtacaacag cactgaccgt gtggctcagc tcctcaccgt cctgcaccag 1080
gactggctga atggcaagga gtacaagtgc aaggctctca acaaaagccct cccagccccc 1140
atcgagaaaa ccatctccaa agccaaaggg cagccccgag aaccacaggt gtacaccctg 1200
ccccatccc gggaggagat gaccaagaac caggctcagc tgacctgcct ggtcaaaggc 1260
ttctatccca gcgacatcgc cgtggagtgg gagagcaatg ggcagccgga gaacaactac 1320
aagaccacgc ctcccgctgt ggactccgac ggctccttct tcctctatag caagctcacc 1380
gtggacaaga gcaggtggca gcaggggaac gtcttctcat gctccgtgat gcatgaggct 1440
ctgcacaacc actacacgca gaagagcctc tcctgtccc cgggtaaatg agtgcgacgg 1500
cgggcaagcc cccgtctccc gggctctcgc ggtgcacga ggatgcttgg cacgtacccc 1560
gtctacatac ttcccaggca cccagcatgg aaataaagca cccaccactg ccctggg 1617

```

&lt;210&gt; 514

&lt;211&gt; 2335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 514

```

tccatcttga attaatTTTT gtctaagggt taaggaaggg atccagtttc agctttctcc 60
atatggctag ccagttttcc cagcaccatt tattaatat ggaatccttt ccccatgtct 120
tgtttttctc aggtttgtca aagatcagat agttgtatag atgcggcatt atttctgagg 180
gctctgatct gttccattgg tctatatctc tgttttggtta ccagtaccat gctgttttgg 240
tgactgtagc ctogtagtat agtttgaagt caggtagtgt gatacctcca gctttgttct 300
ttttgcttag gattgacttg gcgatgcggg ctcttttttg gttccatatg agctttaaag 360
tagttttttc caattctgtg aagaaagtca ttggtagctt gatggggatg gcattgaatc 420
tataaattac cttgggcagt atggccattt tcacgatatt gattcttctt acccatgagc 480
atggaatggt attocatttg tttgtatcct cttttatttc gttgagcagt ggtttgtagt 540
tctccttgaa gaggtccttc acatcccttg taagttggat tcctagacat tttattctct 600
gtgaagcaat tgtgaatggg agtttactca tgatttggct ctggttgtct gttattgggt 660
tataagaatg cttgtgatatt ttgcccattg attttgtatc ctgagacttc gctgagtttg 720
cttatcagct taaggagatt ttgggctgag gcgatggggg tttctagata tacaatcatg 780
tcacttgcaa acagggacaa tttgacttcc tcttttctta cttgaatgcc ctttatttcc 840
ttctgctgcc tttgtccctt ggccagaact tccaacacta tgttgaatag gagtgggtgag 900
agagcgcttc cctgtcttct gccagttttc aaagggaatg ctttcagttt ttgtccattc 960
agtatgttat tggctgtggg tttgtcatag atagctctta ttatttttag atatgtccca 1020
tcaataccta atttattgag agtttttagc atgaagcgtt gttgaatttt gtcaaaggcc 1080
ttttctgcat ctattgagat aatcatgtgg ctttgtcttt ggntctgttt atatgctgga 1140
ttacgtttat tgattttcgt atgttgaacc agccttgcat ccagggatga agcccacttg 1200
atcatggtgg ataagctttt tgatgtgctg ctggattcgg tttgccagta ttttattgag 1260
gatttttgca tcaatgttca tcaaggatat tggctctaaa ttctcagtat gttgtattca 1320
ggaaacccat ctacgtgca gagacacaca taggctcaaa ataaagggat ggaggaagat 1380
ctaccaagta aatagaaaac aaaaaaaagg cagggtttgc aatcctagtc tcggataaaa 1440
cagactttta accaacaag atcaaaagag acaaggccat tacataatgg taaagggatc 1500
aattcaacaa gaagagctaa ctgtcctaaa tatatgtgca cccaatgcag gagcaccag 1560
attcataaag caagtcttta gtgacctaca aagagactta gactcccaca caataataat 1620
gggagacttt accacccac tgtcaacatt agacagatca acgagacaga aagttaacaa 1680
ggtctatccg gaattgaact caactctgca ccaagcggac ctaatagaca tctacagaac 1740
tctccacccc aaatcaacag aatatacatt cttttcagca cgacaccaca cctattccaa 1800
aattgaccac atagtggaa gtaaagcact octcagcaaa tgtaaaagaa cagaaattat 1860
aacaactgt ctctcagacc acagtgcaaa caaactagaa ctcaggatta agaaactcac 1920
tcaaaactgc tcaactacat gaaaactgaa caacctgctc ctgaatgact actgggtaca 1980
taacgaaatg aaggcagaaa taaagatgtt ctttgaacc aacgagaaca aagacacaac 2040
ataccagaat ctctcagaca cattcaaagc agtgtataga gtggaagtta tagcnnntaa 2100
atgccacaaa gagaaagcag gaaagatcta aaattgacac cctaacatca caattaaaag 2160

```

atctagagaa gcaagagcaa acacattcaa aagctaacag aaggcaagaa ataactaaga 2220  
 tcagggcaga actgaaggaa atagagacac aaaaaaccct tcaaaaaatc agtgaatcca 2280  
 ggagctggtt ttttgaaagg atcagcaaaa ttgatagacc actagcaaga ctaat 2335

<210> 515

<211> 1604

<212> DNA

<213> Homo sapiens

<400> 515

attaaaaaca agaataacac cttgcccaaa aatataaggg ttggtccagt attgggctgc 60  
 tatggtaaaa agaattgata gaagatatca taaaataaga aggaccatga tgttctacag 120  
 gaaagctaaa gtctgtgata aaccagactc aaacagggtg agaagtctta tggaaatggg 180  
 gattaagtag ccgcttgata acgttccctt tattgcttac atttatgttc taaggataat 240  
 actattcaaa ttgtttaaga gtaccaccac tcaatcaagg taaagttttc ctgctaatta 300  
 cttactatgc attgtaatga taaaagaagt aagaaaatgc acacacacac acacacacac 360  
 acacacacac acaaagctga gaccaagaaa ataatactgt tttgagtgtc agcatggaat 420  
 tcttgaacaa ctgctgctga gtttctttta attgccttca atccagaata agactgtagt 480  
 tccagtactc atgaggcatt tctaagattt tatctctac agtgcacttt gtacctccac 540  
 aaaaaatccc cttttctcga atctgagtta catgtaaccc ttcaagtcta cttaaagagg 600  
 tgttatactt tccaagtcac taccacctct accaaatccc tcaacaacat attattattt 660  
 tttattttta tactttttgg ttagcattgc tgtcactcct atcaacaacc ttttgaagaa 720  
 gtgcggatct ctcatctatg agtatggaaa ctcagagaat gtaagtgtact tctttttgtc 780  
 tctaacctgt gttcaagcct ataggttaagc aactgccaga tgtggtattt ctctaactag 840  
 actttttacc ctccctgaga aactccagc cccataaatt tttccagag atgttacatg 900  
 ttctaagaa gtgacttaca taaacacaaa aaactagtag ccttacctat ttattatttt 960  
 tctcctcctt tcttggtatg ctatgctaata gtcactttt catggtgatg cctgcccatg 1020  
 tcaactactga cacttataat gccagctatt gatggcacta ttttttatgc taatgatgcc 1080  
 attcttttcc ccagtcacca gcactccctt gtcactatca aatcaccccc attcctatca 1140  
 gtccctcaaat ggctgtcatc aatgcactca atgtttacca acagactcct tttagtcttc 1200  
 tttatgttct ctttgcataat ttcttgcaact aaaattcaga aatgataaag tcaaaacat 1260  
 taaaaacccc agtattcctc ctacacacac acttacacac ataccagata tgcttgctca 1320  
 ttgaccccca actaaaactag taaacatctc tctttccctt taggtcagga tgtatgttct 1380  
 tccatttcca cctcctggct cttgacctca tctcttgtaa atggatccct cgtggacca 1440  
 ccctacagtc ctgcagacat gccagacat ggctaaatcc cagggngngn acagatcttg 1500  
 acatctacta cactactaat tagcaatgaa gtacttttca ttatatacac acagtctctt 1560  
 ttgcagattg ttgctgatga tttacataac ttgcccttta tttc 1604

<210> 516

<211> 1345

<212> DNA

<213> Homo sapiens

<400> 516

cttggctctg aagggcagga cctaccccat tctgcactgt tcaaagcagg gccactgaa 60  
 accccaacat agccgtccat ggtgtgatcc tggcaagttc acgtactgtc gacctatccc 120  
 cacaccaggc gaaccctga acccgccctt gacctatgg gctgtgggct aaggggcccag 180  
 gctaagcttg ctgtgggcca cagcacctgc tcagggaactg cagtactgtc ccaacaccct 240  
 ggggcccaca ggctcccagg cagaggagcc tccagcttgg ccacctctc ccttctactg 300  
 gcacactctt cctgcctgcc ctgcaggggt ctcatggcaa cagtactgtt ggggggtggag 360  
 gctgggctgt gctgacagct ggagggggca ggagcctgaa ggcggggggc agggctgcag 420  
 gcggctgctt gggagccttg cagagtggac ttccacctcc tggggctgag gtcgccaagc 480  
 gtgctgcgtg cagctgctga gccctggcac agtgggctgg aatgtaccca ggggtgtggc 540  
 agacttgggt ggacgtctc acaccactgc tgggcagcct cctgccaacc cacggcagcc 600  
 tgggcccggg gcagcgggag cagaggtaca ggcagaagaa cagacacacg cagagtgaag 660  
 caggagtgtt ttatggtctg agtggagtgt ttgggaggag tgctcccggc tctgtcttcg 720  
 ggctcacctg agcgggggag cagctgaggc cactgtggga aacacaaccc cactcccag 780  
 gagaggcttc acatgctgct tcggctctgc cagccttcta gcgtggggcc tgggcgccc 840  
 tttagggtga gtctgcacac ccgtgttcag ggctcccggc cggaagcggg accataggca 900  
 tgctgcggcc ccagatgagc gcggagggca agcaggtgcc ggggcagcgc acaccccaca 960  
 gccaaagcgg cctgcccag cctctgtaaa cagaccctca caggctccct ctgggcctca 1020  
 gtcacatccc tgagaaacac tggcggctct gcccagagag ggccagggtg tccacggagc 1080  
 ctggctgaag ccagctgtcc cctcccttct tgagagagc gctcacactg ggccctgaag 1140  
 cccagcacct gcagggccca gcctggggac caccaatgcc cggcctcttc cagctcagaa 1200

gcgcacacgg cagccacggg gcagcggcaa aggcgatggt acagaggcaa atgcctcccc 1260  
 aggcagtgc aggcacgccc cccgccccag ggcggccact gccacgccc gcttagagct 1320  
 cctcgtagtc gccaccccc ggtg 1345

<210> 517

<211> 1392

<212> DNA

<213> Homo sapiens

<400> 517

caactctggg ccttcaagct ggactatgac agcatggagc gggaaattgc tgagccactg 60  
 tttgacctga aagtgggtat ggaacagctg gtacagaatg ccaccttcg ctgcatcctg 120  
 gctaccctcc tagcgggtgg caacttcctc aatggctccc agagcagcgg ctttgagctg 180  
 agctaccctgg agaaggtgtc agaggtgaag gacacggtgc gtcgacagtc actgctacac 240  
 catctctgct ccttagtgct ccagacccgg cctgagtcct ctgacctcta ttcagaaatc 300  
 cctgccttga cccgctgtgc caaggtggac tttgaacagc tgactgagaa cctggggcag 360  
 ctggagcgcc ggagccgggc agccgaggag agcctgcgga gcttggccaa gcatgagctg 420  
 gccccagccc tgcgtgcccg cctcaccac ttcctggacc agtgtgccc cctgtgtgccc 480  
 atgctaagga tagtgacccg ccgtgtctgc aatagggttc atgccttctt gctctacctg 540  
 ggctacaccc cgcagcggcc cgtgaagtgc gcatcatgca gttctgccac acgctgcggg 600  
 aatttgcgct tgagtatcgg acttgccggg aacgagtgct acagcagcag cagaagcagg 660  
 ccacataccg tgagcgcaac aagaccggg gacgcatgat caccgagaca gagaagttct 720  
 caggtgtggc tggggaagcc cccagcaacc cctctgtccc agtagcagtg agcagcgggc 780  
 caggccgggg agatgctgac agtcatgcta gtatgaagag tctgctgacc agcaggcctg 840  
 aggacaccac acacaatcgc cgcagcagag gcatgggtcca gagcagctcc ccaatcatgc 900  
 ccacagtggg gccctccact gcatccccag aagaaccccc aggcctccagt ttaccagtg 960  
 atacatcaga tgagatcatg gaccttcttg tgcagtcatg gaccaagagc agtcctcgtg 1020  
 ccttagctgc tagggaacgc aagcgttccc gcggcaaccg caagtctttg agaaggacgt 1080  
 tgaagagtg gctcggagat gacctggtgc aggcactggg actaagcaag ggtcctggcc 1140  
 tggaggtgtg aaggtgctgt atccccgaaa tctatctgga ccctggactg cagtgcagga 1200  
 gatgacagag tgaggagggc ccagagcaga attctggccc cagaactctg tgcccaggag 1260  
 ccatgccttg agcagtatta gccgtgtgtg tatgcatgtg agtgtgtgtg tatgtgtgtg 1320  
 tgtgcatgca tatgcatgtg catgtgtgtg agctgccttg aacgcacgga gcaaaataaa 1380  
 attttcttag cc 1392

<210> 518

<211> 2613

<212> DNA

<213> Homo sapiens

<400> 518

atagatgtct agattataat cataacaaaa atagacaacc agacttttgc ctctgacag 60  
 aagtactcag cctgacttag gaaataagcc tgagtctgat taagccttta gatttaactg 120  
 aatatgtgtc atggtctaaa taaggacag aaaccataca gttattttgga aatggaaagt 180  
 ttcactctaa gaatgggtcac taggggagtg gagtagggtg attaactaat aagaggcaaa 240  
 gatgtatagg aatagcagat acatggagag cagtcaccac caccagcatg gaagaaagtg 300  
 tccaaggaag agaccaccca ctctcagggc tgagagccta gcctgggtgg aggcctgtgca 360  
 gctgtggcct actgctgggg gtagttggcc gaggttctgt gctgcctgga aacctatgct 420  
 caggagtact gtggaaggta ttcacaggaa gatgcaatga cttggaattt actgagtcag 480  
 cctattctct gggatgggtg ggtgacagag gatttgttca aatggagggt cttacctggt 540  
 ggcacccttc ttc aaagaca cctgatggtg ggtgtcggtg gaaaaccacc tatcaatccc 600  
 tactcactgc cactctgctg cacagccatt gggggtccca gggagggtcgt ctaaggcag 660  
 gtggcagctc ctgtgtctta ttgcaaaacc tctggggat ggggttgagt tggggagggc 720  
 tgggtgatgt gaagtgcctt gctattggca ctggtgtgtg aagctcccaa gaggatata 780  
 ctggccgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgacgtcca tgggaagggtg 840  
 ctggttgatg ctggcttttc agctcggctg taaggaaactg tatgccatgc tgaagcccag 900  
 agagacaaat aactagaac cagaaagaga agctcttctt tctgcttctt tttccactgc 960  
 cttctagtga caaagccttg tactgggata gctcatcaga ggagaaatat ttccaagtcc 1020  
 aacccactc ttgcagagct ggctagggaag aatggattta tatctggagg caaaaaattg 1080  
 acaacagaca caaactacta gcttataaga aattcaggga gtagagggaag atatcaaatg 1140  
 atatcattag ataaaatcag caaaatatag tatgtgggat aaacaacctt gttccttcaa 1200  
 cagataaaca tcaaggaaaa caacacaaag aaatggaaga gaaatctgga ttaaaagaga 1260  
 ttttaagagac atatgtgtgg gccttcttct gattctcatt tcaatgaatg aagtataaaa 1320  
 atttttttgt atgtgacagg aaatttgaac attctggatg tttgatatta agcaattatt 1380



```

gttcattttt gatgtggttaa tagtgtgtct attttttttc taagaactcc tttggtaata 1440
catgctgaaa tatttacaga tgaaatgata caatgtcttg gatttttagta atatgtttat 1500
tgcctttgtg ttgaaaaaac tcaaaaaatg tgaaaatcgt tttttcttac aggggtttaaa 1560
agttactact atacaatagc ctctacctca gttttgtaca gaaatcaatc atgaatgatg 1620
acctgtcttt aaaataacat aattttgaat cttgttcctg agttttgttt ataatgaact 1680
gttagaaaatt tatgacaatg ataactggca tttactaaga catattattc catggctgtg 1740
ttcacgcaca tttgttgact tggtagttta tgatgtgaac aaaagtgtct gtgctttgtg 1800
ggatagttaa tattgtctta tggaggaaa gaaaatcaac tatcattttc agcagctctg 1860
ttgacataga catatgtttt ctacccgcaa gcctgaatat gtattcttct gacatgttta 1920
ctattttctag aaaccatggt attcttaaac atttcagaaa tgcaactgct attatattta 1980
tcctctgctg atatagtgtt tatagcatat actagaattt tagattttga gaaaagttca 2040
tattaaaaaca actacaaatt cccaagagac aatatttttag gtatcgggtg attttttagt 2100
ccatgaaaat gtttgaaata agtcttttgt aatttactaa tgttcttcag ctcttaatga 2160
taatttcact cttgtttgtt tcatagetga aaataaaaata ttagaaaatt ataaagttca 2220
aatagcatga tataaataat aaaattaggt atttacaat attggtgata tttgtgggta 2280
gggggaaggg ctgagtagag gagaagagga tgcattatta agtttaagat ttttcgccag 2340
gcgtggtggc tcacgcctgt aatcacagca ctttgggagg ccgaggcagg aagatcatga 2400
ggtcaggagt ttgagaccag cctgaccaac atggtgaaac cccatctcta ctaaaaatag 2460
aaaaattagc tgggcacggg ggtgcgtgcc tgtaatccta gctactcggg aggctgaggc 2520
aggagaatga cttgaacctg ggaggcagag gttgcagtga gctgagatcg tgccactgca 2580
ctccagcctg ggtggcgggg tgggactcca tct 2613

```

&lt;210&gt; 519

&lt;211&gt; 2809

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 519

```

gggaaaaatg tcgccatgaa ggccgagaa cgtgcgcgc gccgaccccc gccggccctg 60
aacgccatga gcttgggtcc ccgcgcgcgc cgtccgcctc cgactgccgt cgccgcgcag 120
gcccccggtg atgcgcgtga gctcccccaa ccgcgcgcgc accgcctccg acatggacaa 180
gaacagcggc tccaacagct cctccgcctc ttccgggcagc agcaaagggc aacagccgcc 240
ccgtctctcc tcggcggggc cagccggcga gtctaaacct aagagcgatg gaaagaactc 300
cagtggatcc aagcgttata atcgcaaacg ggaactttac taccctaaaa atgaaagttt 360
taacaaccag tcccgtcgct ccagttcaca gaaaagcaag acttttaaca agatgcctcc 420
tcaaaggggc ggccgcagca gcaaaactct tagctcttct tttaatggtg gaagacgaga 480
tgaggtagca gaggctcaac gggcagagtt tagcctctgc cagttctctg gtccctaagaa 540
gatcaacctg aaccacttgt tgaatttcac ttttgaacct cgtggccaga cgggtcactt 600
tgaaggcagt ggacatggtg gctggggaaa gaggaacaag tggggacata agccttttaa 660
caaggaactc tttttacagg ccaactgcca atttgggtg totgaagacc aagactacac 720
aggtcatttt gctgctcctg atacattagt taactgggac tttgtggaac aagtgcccat 780
ttgtagccat gaagtgccat cttgcccaat atgcctctat ccactactg cagccaagat 840
aaccgcttgt ggacacatct tctgctgggc atgcatactg cactatcttt cactgagtga 900
gaagacgttg agtaaatgtc ccatctgtta cagtctgtg cataagaagg atctcaagag 960
tgttgttgcc acagagtcac atcagtatgt tgttgggtgat accattacga tgcagctgat 1020
gaagagggag aaaggggtgt tgggtggctt gcccaaatcc aaatggatga atgtagacca 1080
tccattcat ctaggagatg aacagcacag ccagtactcc aagttgctgc tggcctctaa 1140
ggagcagggt ctgcaccggg tagttctgga ggagaaagta gcactagagc agcagctggc 1200
agaggagaag cacactcccg agtctgctt tattgaggca gctatccagg agctcaagac 1260
tcgggaagag gctctgtcgg gattggccgg aagcagaagg gaggtcactg gtgttgtggc 1320
tgctctggaa caactggtgc tgatggctcc cttggcgaag gagtctgtt tccaaccag 1380
gaaggtgtg ctggagtatc tgtctgcctt cgatgaagaa accacggaag tttgttctct 1440
ggacactcct tctagacctc ttgtctctcc tctggtagaa gaggaggaag cagtgtctga 1500
accagagcct gaggggttgc cagaggcctg tgatgacttg gaggtagcag atgacaatct 1560
taaagagggg accatttgca ctgagtcag ccagcaggaa cccatcacca agtcaggctt 1620
cacagcctc agcagctctc cttgttacta cttttaccaa gcggaagatg gacagcatat 1680
gttctcgcac cctgtgaatg tgcgctgct cgtgcgggag tacggcagcc tggagaggag 1740
ccccgagaag atctcagcaa ctgtgggtga gattgctggc tactocatgt ctgaggatgt 1800
tcgacagcgt cacagatata tctctcactt gccactcacc tgtgagttca gcactctgtga 1860
actggctttg caacctcctg tggctctctaa ggaaacctta gagatgttct cagatgacat 1920
tgagaagaga aacgtcagcg ccaaaagaag gctcgggagg aacgcgcgcg agagcgagg 1980
attgagatag aggagaacaa gaaacagggc aagtccacat tcccctcag 2040
aatctacagc agtttctgc cttcaattct tatacctgct cctctgattc tgccttgggt 2100
cccaccagca ccgagggcca tggggcctc tccatttctc ctctcagcag aagtcagggt 2160

```

```

tcccatgcag actttctgct gaccctctg tcaccactg ccagtcaggg cagtccctca 2220
ttctgcgttg ggagtctgga agaagactct ccttccctt cctttgcca gatgctgagg 2280
gttggaagaa caaaagcaga tgtgtggccc aaaactgtc caaagaaaga tgagaacagc 2340
ttagttcttc ctgcccctgt ggacagcgac ggggagagt ataattcaga ccgtgttcct 2400
gtgcccagtt ttcaaaattc cttcagccaa gctattgaag cagccttcat gaaactggac 2460
acaccagcta cttcagatcc cctctctgaa gagaaaggag gaaagaaaag aaaaaaacag 2520
aaacagaagc tcctgttcag cacctcagtc gtccacacca agtgacacta ctggcccagg 2580
ctaccttctc catctggttt ttgtttttgt ttttttttcc ccatgcttt tgtttggctg 2640
ctgtaatttt taagtatttg agtttgaaca gattagctct ggggggaggg ggtttccaca 2700
atgtgagggg gaaccaagaa aattttaaat acagtgtatt ttccagcttc ctgtctttac 2760
acaaaataa agtattgaca caagagatct cttcctgcca ccttagaaa 2809

```

&lt;210&gt; 520

&lt;211&gt; 516

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 520

```

ccccgtctct gctacagatg caaaggctcag ctgggcatgg tggcgcatat ctgtgggtccc 60
agctactggg gagggccggg caggagaatc gcttggggcc tggaggcgga gggtgcagtg 120
agccgagatc gtgccactgc actccagcct gggagacaga gcaagactcc atctcaaaaa 180
aaaaaaaaaa aaatcactag taagtgccag tgggtgactgg taagcttaaa aaagaactat 240
gagtgcagtg attggtgtgc ttgtgtttca gtccatttca gtcagctcct tctagtgtgc 300
tctagggtgc tgtgctatga caagatgttc caagttcatc atatatattg tttttatccc 360
ataactgagc ttacagtttt ctaaggagcc ttgctatatt ttagttgaaa gcagtatttc 420
aacaccaatc tgggcatgct atatgctgtt agtgggtaat acatctaaat ataaggatac 480
ataagattg taagtaaaag ataaccatgc atatcc 516

```

&lt;210&gt; 521

&lt;211&gt; 931

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 521

```

gtttctctct ccatgtagag tgatggaaga gcagaattgt ggaggagcag ggttgctttg 60
ttttgtcttt gttgtactca gctggaaagc tgtttaagga aagaatctgg tcatatgacc 120
tcctttctgc aattggaaat gaacgccaca gggaaaagaa gatataagac acagaatgct 180
ccttgccctg ctaaaatgga agaggacaaa ggaagcagaa tactttctgg gcttttggtc 240
tttgcatacc tcctctggca gaccctgtc caagacgctg gctgtgttgt gtgccaggct 300
agagcttgta cctactgtaa aatctgtgtg tgatgtctgt tgagttttt ggaaaacaaa 360
aaacttatat tttaaaatac aaggatttag ataataccaa gggcagataa ttccaccctt 420
ggaaataaaa aagattttct tttcttcagc ttgaatgtac tgtacagctg tgtttctgca 480
gtagggtctca gctcttagga acgagaaaaa ggaaaacatt acccactttg catttcactt 540
ctgttctttt cctgtgagac agatactact atctatccta tttttatggg ttaaaaagca 600
cagatcaatt gaaaaagaac tggaaggata actgctaaac tgagaactgt tacatccagg 660
cacgttgact cgcgcctgta atcccaacac tttgggaagc tgaggccggg ggatcacgag 720
gtcgggggat cgaaaccatc ctggccaaca tgggtgaaacc ccatctctac taaaaataca 780
aaaattagct ggggtgtgtg gcgtgtgcct taatcccagc tactcgggag gctgaggcac 840
aagaatcgct tgaacctggg aggcggaggt ttcgggtgag tgagatcgca ccactgcact 900
ccagcctggc accagagcaa gactctgtct c 931

```

&lt;210&gt; 522

&lt;211&gt; 512

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 522

```

atctgcctaa accagaatct tttgtcagaa accttaaccc aacaaaacaa atcttgagta 60
gctcatgccc ggctcttagg aattttgtct gtttaaaaaa aaaaaaaa aaaaagtcca 120
acttacttta ttttattttt ttaacctagt cactgtttac aattgtatgc taaagcctga 180
aatattgtct gtgctgtggt gtatgagcat tgccaacttt atatttattg cagtgaagaa 240
gaaactaaaa atatatggaa atgaggagca tgtccaagct cctaaatccg tgtgggtgca 300
tgtgggagaa gtgagttagg gcctcttgaa aggaggcttt ttggagaggg gtccccaggg 360
tttcttggtg ttcctgcttg gggatcactg ctgctagctg actggacctc cccattggaa 420

```

gtttgtgatt ttgctttggc aaagtttcat tgactagtag aactcattct gtttttagtgt 480  
atatttcaat ataatgtaa acattttgct ct 512

<210> 523  
<211> 875  
<212> DNA  
<213> Homo sapiens

<400> 523  
aggatgatcca cccacctcag cctcccaaag ttctgggatt acaggagtga gccactgtgg 60  
cctgccattc ccgtgagttt tcacaaatgt atgtagtatg tcattgccac cacgatgaag 120  
gtcaagagca ttccaacacc ccataaaatt gcctcaggct tctttgtagt taatccctca 180  
ccgtcaactt ccagaatgtc atagagagaa aaaccacaca atatatgtcc ttttgagtct 240  
ggtgttcttc actcagccca gtggattctg agacttctgt ctggtgtgtg gatctgtgag 300  
aagagctgct ggtttttaat ctgttttatc cagttaaagt tattctcagc ttccgtgtag 360  
gcttataaat ccttctttat aaaagtagtg attcaatttt aagcaaatg aatcttttct 420  
tcatgtgaaa tttcacgggg aattccaaga tgtcactgga taaaggctga gctgtcttgg 480  
tgggctggag gatggagaag gtcgtgtgtt gtgagttagg cctttctggc ttcagcctca 540  
tcccctcagg ggacctgagc tcagctggag aatcaagaat ccgggttttg ttgtctgttt 600  
tgtgagtcaa gaaaaaaaaac cttgcatagc acagtggctc acgcctgtaa tcccagcact 660  
ttgggaggct gaggggggtg gatcgccctg ggtcaggagt tcgggaccag cctggccagc 720  
atggtgaaac cccatctcta ctaaaaaata gaaattaggc ctggcacggg ggctcacacc 780  
tgtaatccca gcactttggg aggccaaagt gggcagatca caagggtcaag agatcgagac 840  
catcctgccc aacatggtga aaaccggtct ctact 875

<210> 524  
<211> 542  
<212> DNA  
<213> Homo sapiens

<400> 524  
accttttggg cctcagtttc catgtctgta ccacaagagg gttgaccaga tggccccagg 60  
ttttccttta ggtctgacat cctgagggtc attcatocca tggccagttc cccccatcct 120  
actcctaaca gatgtgaccc tacttgaggc cgccttggtt tttgggtcac cctgtctcat 180  
cccatcacc ccaacatacc ctagtccctc agcctggggc tctggcatct gagcccgagc 240  
tcctgcccct gctgtgggaa aggtggggaa gaaggggatc tccctcccgg gccacccag 300  
ctgccagccc tttgccact cggggagcag atcatgcatg ccaatccctg ttgccgcatg 360  
gagctcctca gccactgac ctctccgtgc ctggtgcagg ccaggccccc gtcttccgcc 420  
tgcctctgct tcccgcctat gcatgggtgt ggtgtttcta cgggtgtctg ttctgtgccc 480  
gtctctgaga cagtctctgt gtggaatttg ccttaaactg aagtaaattt ggttctttta 540  
gt 542

<210> 525  
<211> 471  
<212> DNA  
<213> Homo sapiens

<400> 525  
aacagggtct cactgtgttg cccaggctgg tcttgaactc ctgggctcaa gctatcctgg 60  
gctatcctgg gctaccgctt tggcctccca aagcactgag attaggggca tgagttaccg 120  
tgtccagcct gggacagtct taaaccccag ggctatagtt agatgtgatg cctttcttgt 180  
gtaaaatgag agaangatga ttatgaaagg ggacccttga aactgagtcc tcagatccac 240  
tgggttttag aaagaatacc tgtaaagtna aatcacacca tgtgatgtct gtatctcaag 300  
tctgaagact tgtatttgag attactctgg catgcttagc atncttttga ctgacttttt 360  
caacctccta attgtaatag tagtatctcc gtgtctttgt tctgtttctg gtcagaattt 420  
tgccctgganc tgaaaaatat taaagttcac cataaccctt ccagaaaata t 471

<210> 526  
<211> 490  
<212> DNA  
<213> Homo sapiens

<400> 526  
cactgaacat tcacagggga actttcctga agttcagctc aagactaccc tacctgctgt 60

```

gtttgtgaga agagtaggat cacacacaca ggtgcaatct tgaccacact tacctgcaag 120
aggagtaacc agaggacaca cttccttcct tcttttggtg ctgaggagtg tgaactgttg 180
gggtcagtta agaccaaca taactctatc agaagaaaac tgttggttgc ctttcaacct 240
tgttttacag ttctgcagtg taatggagga cgggcaacgt gcatgtgcag gctcaccact 300
cccaggcctc tgacatgagg gacatgtgac agtgtcattc agtattatgt tcaaaagaca 360
tttttatcct gatcataatt aatttgaaaa ctctttaagt tcatgttata caagatgatt 420
tactgtatta tacttttctt tttttatata atgtctaaca aaaaatacag ctgcaacatt 480
ttgattcctg                                     490

```

&lt;210&gt; 527

&lt;211&gt; 622

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 527

```

gccattctcc tgcctcagcc tcccagagaag ctgggactac aggcgcctgc caccacgccc 60
ggctaatttt tttgtatttt ttttttttagt agagataggg tttctactct agcggttagcc 120
aggatgggtct tgatctcctg acctcgtgat cctcccgccct tggcctccca gagtactggg 180
attacaggcg tgagcactgc gcctggccta agtttggggt ttttaaaaaa tctcttaatt 240
gatgtgaata cttttcagag atttccttct cttatgtttg tagaacaaaa actagcatgg 300
ctccctgtat tctacttaat tttcttgtgt tctaccctgc attgctatta agaatttcag 360
gaatgagtag atttgggtca gaactttcgc acaccttccc tgcacactgt ggtacctctg 420
gccagagtta ttttcttaca ctgttttgca gtggataaag agtgtgattt tgtttgtttg 480
tttgttttga gacagggtct cactctgtct ctctactcaa ggaggctgag gtgggaggat 540
ccottgagtc caggaatttg agattgcagt gggctgtgat cacactactg caccacagcc 600
tgggtaacga gattgtgtct cc                                     622

```

&lt;210&gt; 528

&lt;211&gt; 287

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 528

```

gagggtttga tcgccagcgc agcctcgccc tgcccagaca gctgggcccct aaggggatag 60
ccagcgcctt tagacttatc ttaaatcggg catctgcac aacacttatt tctgggggtcc 120
tccatggaaa gcagctccc aaacaacacc cgcgcggctc gccctccgct gcaactggaa 180
accgcccctg gacgtttctg ccgcagtgtc cccctcacgg agttccgttt gtctgcttgg 240
tcggttggtc tctggagccc caggacccag gccgcttgta tgtgcct                                     287

```

&lt;210&gt; 529

&lt;211&gt; 958

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 529

```

ctcaaggatc tactgtgaaa ggtgtgtttg taggtgatat ccaacctaac tcagtaacga 60
agtctgttact tagctcttag ctgtgaaata actctggaaa cttccccacc ccaaccataa 120
attcttactt ataaagaaac aggtcccca actggaaaca gcttagtcca ggccctcagcg 180
agaaggaagg acaccatgac tgctccatgc tgggcacagc cgggcagtct tgccaagtgc 240
ctgtctggagg ctgtgccggc aagaggcctg cagcaaggag attcccttcc ctcgggcccatt 300
tatcaatact gtcttttatct ggagggtggg aagcgcagcc ctctgagaca gcaggacaat 360
ggtcagttca gagaggggtga gggcagcaaa cgcttcagag gacacagaag ccagaggacc 420
cccccccgcc ccacagctgg gtcagcctgg aaaatccatc tattagggac tttttggcag 480
ccagatggca gcaatagccc attaggtctc atcccaggtt ccaagtcttg gctgcaaatg 540
agcctcagtt cgccttactg gagagcacc ccagattcct gggcacagtt catttccagc 600
cctttctaga tctgatcttt tagggggaaa gacagcttaa aatgttcttt tcatttttaa 660
gaaaattatt ctgtctgctt aagttggagg ctacttactc tttcacctga cattttcttt 720
ccttttatcc ttccagatca ggaatgaaat ttccatgctg ctcaataaaga taatattatt 780
gtactaatta tttttattac cattgttaatt atgatcatta tgttgatatt ttagtcaggg 840
ttttaaatgc acattttatt caagtatctt tgtgttttct ctttaaatatt taaacttatt 900
ctctctgtga gtatataagt agactggagg gacatccaga tgtccagttt tgtcaggc 958

```

&lt;210&gt; 530

&lt;211&gt; 1583

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 530

```

cttggttaggg aagagacctg cttggggccac atgggtctgc tgcctgtgcc accacctttc 60
ccagaacact ggacttcttt cctgcccttt tctacaactc tacgctgtgt cagctgtaca 120
gccaccccc accccttctt ttcagcctcc atcagggaag agacagtaaa aataatcaca 180
gtcaagtgat tcaaaacaaa acaaaaagca actgttaaag ccaagtctgc ccataactt 240
taaaagccat cattggtcac tggcgtatgc tatttttgaa ggggtgagat ggacagattt 300
ccaagatgc atatcttttg ctttcagttc taacaaatgt tctattagct aaaatgtgtt 360
gtactccaca gagtattggg ctctgaattc tttttttttt tttgagatgg agtttcactc 420
ttgttgccca ggctggagtg caatagtgc atcttcactc accacaacct ccgccaccgc 480
ggttcaagca attctcctgt ctcagcctcc cgagtagctg ggattacagg catgcgccac 540
cagcaccggc taattttata ctttttagtag agatggggct tctccatgtt gccaggctg 600
gtctcaaact cccaacctca ggtgatccgc ctgccttggc ttcccaaagt gcggggatta 660
caggcatgag ccaccgcgcc tggctgggct cgttaattct tatcctagt ccagcttaga 720
ggaaggcctg gaaggagggt agggggacca aggagaaact ttaccctaa gccctattac 780
ctccccattc ccagtgtctg ttatttgtac ctctctgcc cactcatttc tgttccacct 840
gccccctttac ttcttaagca gcctcctcat ccttcttctt cttcagctct tatgttgaaa 900
ctcctgttat ctcataatca cgttgaatgt gctcattggg tgggtgattt tttaaagtct 960
agtttaaatc catttaattt cagccctgca aagactctat ccgtgtggtt atttggaat 1020
acgataaatt agtagttagt atagagggtt cccccactta caaatggaga agagcctgta 1080
catttcataat tccagaaaag ttttcctgca ttcaaagact tgtcactgga cccaagccac 1140
atgtgtagtt ggggtcaaca tgattatcac tggactctgc tctgtaaatcc tctctactc 1200
ttgtctaaag gaattcaagc ccacatttaa atctgtcag cttcatagtt gttggctttg 1260
ctgtggccta cgctccctat tttcattcag attctgagcc ctggataaaa tgcagagagt 1320
ctaaccctct ccaccctct gcctctccag cggatgcagt ggtgcagtat gacgtggagc 1380
tgattgcact aatccgagcc aactactggc taaagctggt gaaggcatt ttgctctgg 1440
tagggatggc catggtgcca gccctcctgg gcctcattgg gtatcaccta tacagaaagg 1500
ccaatagacc caaagtctcc aaaaagaagc tcaaggaaga gaaacgaaac aagagcaaaa 1560
agaaataata aataataaat ttt 1583

```

&lt;210&gt; 531

&lt;211&gt; 913

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 531

```

aaccatggaa accccagcgc ggcttctctt cctcctgctc ctctggctcc cagataccac 60
cgcagaaatt gtgttgacgc agtctcccg caccctggct ttgtctccag ggaaggagc 120
caccctctcc tgtaggcca gtcagagtct tggtaacaac tacttagcct ggtatcgta 180
gaaacctggc caggtcccg aactcctcat ccatggtgtt tctaccagg ccaccggcat 240
cccagaaagg ttcagtggca gtgggtctgg gacagacttc actctacca tcagcagact 300
ggaacctgaa gactttgcgg tatattactg tcaccaatat actagttcat cgttcacttt 360
tggccagggg accaagggtg tcatcaaaag aactgtggct gcaccatctg tcttcatctt 420
cccgcctatc gatgagcagt tgaaatctgg aactgcctct gttgtgtgct tgcgtaataa 480
cttctatccc agagaggcca aagtacagt gaaggtggat aacgccctcc aatcgggtaa 540
ctcccaggag agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac 600
cctgacgctg agcaaagcag actacagaga acacaaagtc tacgcctgcg aagtacacca 660
tcagggcctg agctcgcccg tcacaaagag cttcaacagg ggagagtgtt agaggagaa 720
gtgcccccc cgtctcctca gttccagcct gacccctcc catccttgg cctctgaccc 780
tttttccaca ggggacctac ccctattgag gtccctcagc tcatcttcca cctcaccctc 840
ctcctcctcc ttggctttaa ttatgctaag gttggaggag aatgaataaa taaagtgaat 900
ctttgccctc gtg 913

```

&lt;210&gt; 532

&lt;211&gt; 703

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 532

```

agcacacatc cctcaacatg tccagttagg agctcctggg cgacgggtcc tgcaggtgga 60
tgtggaccag gagccccgtg ggaggaaagt gccctgggg agagctggtg gataccccga 120
atggcaggcc acctggggca aagccagtgg aacctgacta tggcaggatg agaaccagg 180
tgttttataa tgcccacttt tttttcactt cttgcagttt ctatgtttat ttcctgttag 240

```

```

catttagtag tatctttatg agtttatctc agttatgcta ggcagaaagg agctcttgtc 300
agttggcagg accgaaaggga gagaataggc agggggaaga ggggacagta atcgaagtag 360
gagcaccttg agcgaagtga aatgtgggat ggaaatggaa gctcctgttt gtgatctccc 420
agagaggctc agtcacagcg caggtgccgt gtgcttggtg aataaagaga ccgaattcct 480
tctgtactgg gggttcatgc tgaacccac ctttgttgaa ggggagggaac cagctgcccc 540
aggcaaaacta gaagcatgct tgcaggaggg aagggttaaga cacacagttt atgtgcatag 600
cagtgaaaac catagtgtct gttctgaagt ttgggaaaat agtgtgagac tgtctagctg 660
ggtctgtcat tggctgatgt gtagtatgtg tgggtcgctc act 703

```

&lt;210&gt; 533

&lt;211&gt; 943

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 533

```

tttttttttt tgcccaaat aagactagaa atggattgct ccatttaaga cttccattaa 60
taaaattctc agaatatgaa atgcctccaa aatgtgggga cgctgggttg aaagtgccg 120
gataattctc tttggtcgt gcgctgggtg caggaggaaa tatgctaag tagccgtttg 180
ccgcaggctg gtgttattta tacagcgtg gctgggcaag gttggcgctg gagcaggaga 240
ggaggggagag gtttgtcttc ttgtgtgaga gtatagatgt gtgcgcctgt gcacacggcg 300
ttccaaacat gaatacaaga tcttagggag ggggtgggga atgccatcac gtttatactg 360
tgtgtattat aacttgtgtt ggagatatat ccagcateg tgcttacatc gcatgcactt 420
aggagtgggg gaagaaatgg cgatttggga gtgggtgcgg cgggtcgag gtggccagac 480
actgcggggg actggcgacc tgaattggc aaaggcgct ccttgacct gctccacgga 540
cacaaaaatc aaccttattc gctcctgga aaagcgaga gggttgttcc cgaaggtga 600
agaccctcgg gcttgggact gggagcgggg cgcgggcagc gggaccgccg ggcacctctg 660
aagagacaga ggtcacggag acctggcgcg cgcgagtggt gtggggggcc cgcgcgcgctg 720
cgggagccca gcttaagaga agaccggcc cacacgttct cagcgacgc cgactttgcc 780
gggaccctcg ccggccggcg acccctgtac gcggtctcc tcctcccccg ccccgcccg 840
cgcgaaacgg gcaacgggca ggggatcctc cagccaggcg ggcccggggt gtcccgtttc 900
ccccgcccc ctcccggtga tcccgagcg gcggcgggcg ccg 943

```

&lt;210&gt; 534

&lt;211&gt; 520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 534

```

tggtagctc cttcttttag tcaaggttgc tgcaagctgg agctgagctg tcagtggaac 60
gggtcctgga aatcattaag caaggcgtcg ttgcgtgcc caaagacaga ctgaagaaat 120
ttccagaatt gaaattcaaa tatgtggaag aggagcagcc cgaggagttt tttatccct 180
atgtctggtc tcttgtctac aactcagcag tcggcctgta ctggaatcca caggacatcc 240
agctgttcac catggattcc gactgagggc aggatgctct cccaccgga cccctccagc 300
caagcagccc ttcaagttct tttatttctg ggtaacagaa gtagacagac aggttacttg 360
gtgtatcttc tgttaaagag gattgcacga gtgtgttttc ctcacacact ttgatttgga 420
gaattgggtc tagttggcaa tagataactc agcgtagata gtattgcaaa aaggggagga 480
aatacacaac aataataaat gtaaaaacct gccttagaaa 520

```

&lt;210&gt; 535

&lt;211&gt; 325

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 535

```

ggggagtcag tctcgaggac ctcaggggac agccgaagct cccatgacct aaccctaact 60
gaggagggtg tggggctggg cagccgccag ctctctcag cggggaggtc tgcggcctgg 120
gcgcccctaa ctctcatgtg ttcttaccgg cagtgggtga gtgtgaagcg tctgccatgc 180
tgccactgga gtgccagtac ttgaacaaa acgcctcgac gaccctcgcg ggacccctca 240
ctcccccggt gaagcatttt cagttaaagc ggaaacccaa gagcgccacg ctgcggcgcg 300
agctgctgca gaagtgtgag tggcc 325

```

&lt;210&gt; 536

&lt;211&gt; 690

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 536

```

gcgaggagtgc atggcagctc tgggtcccag acctggcccg acccctctgc ttcacctcca 60
gctctgctgc tctctactc ttgggtcgag atccctttgg agccacagcg aggaaccctg 120
tggtcctcag gcaggtgtac cttgagtcag ccaggagccc tcttttcctg tgtcaaagcc 180
tgccctcngg ctctgctcac ctctggtgac cctccaagat gcccttgccc tcagtttccc 240
ctcatgatct ggctctgcc cccttctcta gccacagcct ctagtacct ttagcaatac 300
caccagacta gttagagttc ccactcacg aagcaagaca tgcagtttca tgcctctgtg 360
ccttcgctca tgcgttttct tccgactgga atgccttccc ctgctctcc tgccttgtct 420
tgccctggca gttcattttt cagcatcccc tcaaaggccc cctcctccag gaaggcaacc 480
cctntgcccc tccctccag gttacctctg cactttgtca atgcttctct tgtggcactt 540
atcacactgt attttacttg ttacatggt tgtctccct tctagactgt gaatccttaa 600
gggcatggac tgatcttat gcatctctgt atttctgcgc ctacacggg cctngcacac 660
agtaggcgct caataaatgt tgaatgaatg

```

&lt;210&gt; 537

&lt;211&gt; 803

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 537

```

ctctggccaa taagagcgct tgaactgtt ctatgtacta tgccctcgga tagaaacaca 60
gttacctctc ccctttcacg tagttttcat ttgtggtgag attctctccc aggccacaag 120
acatttcctg ctcggaacct tgtttactaa ttccactgc ttttaaggcc ctgcaactgaa 180
aatgcaagct caggcgccgg tggctgttgt gacccaacct ggagtcggtc ccggtccggc 240
ccccagAAC tccaactggc agacaggcat gtgtgactgt ttcagcgact gcggagtctg 300
tctctgtggc acattttgtt tcccgctgct tgggtgtcaa gttgcagctg atatgaatga 360
atgctgtctg tgtggaacaa gcgtcgcaat gaggactctc tacaggacc gatatggcat 420
ccctggatct atttgtgatg actatatggc aactctttgc tgtcctcatt gtactctttg 480
ccaaatcaag agagatatca acagaaggag agccatgct actttctaaa aactgatggt 540
gaaaagctct taccgangca acaaaattca gcagacacct cttcagcttg agttcttcac 600
catcttttgc aactgaaata tgatggatat gcttaagtac aactgatggc atgaaaaaaa 660
tcaaattttt gatttattat aaatgaatgt tgtccctgaa cttagctaaa tgggtgcaact 720
tagtttctcc ttgctttcat attatcgaat ttctggctt ataaactttt taaattacat 780
tngaaatata aaccaaata aat

```

&lt;210&gt; 538

&lt;211&gt; 419

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 538

```

ccacagtctt ctggctggct tgcactccag ccgcgcccat gcagcgctc tcccacacgc 60
tgccgtgccc acccatatcc cgcagagtct gccaggtaat caccgacgg tcagtgtgcc 120
acggcaccg tgtgctttg ccctctccac ccctagggtgc tttgcccgtg ccaagggctc 180
tggtgtcttt gccttgacgc tgttgttgtt ttggtttgtc ctttgaggct gtgctttgtc 240
agtactcagg gtgacacgca cttctactct tggggtttcc tctggctccc acttggaact 300
gccgccaggc cagcctcagc ctgtgtgatc acagggaaag ttgccccggg caggggtggg 360
cgcttttgtg tgcggtggag gagttcctaa cctcggctt gttttttct cttcagttt 419

```

&lt;210&gt; 539

&lt;211&gt; 717

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 539

```

gacagatcgc gctcgggtct cggcctcctg agtgccggtg actgcgggag gcgacggagt 60
gcttctgggg gtgtgagctg gggaaagtct tggtcacgga tgcgtgtggg gttgtgctc 120
agtctgtaac ggcaggaaag atgaanggga gggctgattt tcgagagccg aatgcagagg 180
ttccaagacc aattccccac atagggcctg attacattcc aacagaggaa gaaaggagag 240
tcttcgcaga atgcaatgan tgaaagcttc tggttcagat ctgtgccttt ggctgcaaca 300
agtatgttga ttactcaagg attaatagat aaaggaatac tttcaagtca tcccaaatat 360
ggttccatcc ctaaacttat acttgcttgt atcatgggat actttgctgg aaaactttct 420

```

```

tatgtgaaaa cttgccaaga gaaattcaag aaacttgaaa attccccct tggagaagct 480
ttacgatcag gacaagcacg acgatcttca ccacctgggc antattatca aaagtcaaaa 540
tatgactcaa gtgtgattgg tcaatcatct tttgtgacat cccagcagc agacaacata 600
gaaatgcttc ctcatatga gccaatcca ttcagttctt ctatgaatga atctgctccc 660
actggtatta ctgatcatat tgtccaagga cctgatccca acctgaaga aagtcct 717

```

&lt;210&gt; 540

&lt;211&gt; 602

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 540

```

cttcagggtgt ggtagccggc gcgcgcccc tagccggacg gggatctgag ctggcaggat 60
gaattgtggg ggtggcacac agcgaagtaa accccaacac ccgagtgatg aatagccgag 120
gcatctggct ggcctacatc atcttggtag gattgctgca tatggttcta ctgagcatcc 180
ccttcttcag cattcctgtt gttctggacc ctgaccaacg tcatccataa cctggctacg 240
tatgtcttcc ttcatacggg gaaagggaca ccctttgaga ctctgacca aggaaaggct 300
cggctactga cacactggga gcaaattggac tatgggctcc agtttacctc tccccgaag 360
ttcctcagca tctctcctat tgtgctctat ctctggcca gcttctatac caagtatgat 420
gctgcgcact tcctcatcaa cacagcctca ttgctaagtg tactgctgcc gaagttgccc 480
cagttccatg gggttcgtgt ctttggcatc aacaaatact gagggatggg ttttgggaca 540
gctccatggg catggggaag gcactgaaac agaggactat aaaacatcct tctcttattc 600
cc 602

```

&lt;210&gt; 541

&lt;211&gt; 649

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 541

```

atttgacctc agcatctctt tttatagtgt tcagaggaat gtgtcatttg ctaaattgaa 60
agaaagtaaa ataagtga aaatattac ttcaggcttt gcntgtatgt ttctcgtcc 120
ttgttttgat attagtgatc ttaaaataga cattgaagtt agctgaagtt taaatctttt 180
gaactttgta gctaacacat aattttgggt tttgtaaacc tgaagtcact catttaatct 240
taaaactaata atgttttctt acaacctgag aactattttc attggatggg gggaaaaaat 300
ggcgggttct gtggtctttg tgtggggaan ggcagcgaaa ggtggtgggt tggctcctg 360
tggttgctgg gtttatttgt ttgtgcttgt gttttgcttt ttcatatgtt tccacgctg 420
caactaagtc aatatattct cgactacttc ttttttgaga ctttttctct tttgggttac 480
attttgtcaa ctgtgtaaaa ctccaatatg gagaccaagc atggtagctc actcgtgtaa 540
tcccagcact ttgggaggcc acggtgggag gatcgcttta acccaggant tgggaatgag 600
cctgggagat anncgaaac tatgtctcta caacacatac acgcacacc 649

```

&lt;210&gt; 542

&lt;211&gt; 545

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 542

```

atttgtgact ttgatccatc ccaagcatgg ttaagaggga gcacgggcag gaaaggccca 60
ctttctgggg ttgggcagcc acccctgccc cagtttcggc tctgggaat cctccgactg 120
gagaagggga aaggcaaggc agtctctctg gaggcggctt ccttgggagc accagcttcc 180
agcggcgggg agagaaggag ctctctgtgg agagggggca ggatgtgagt aggtcgggtc 240
tggtatgagc agcaatctct cctccaagcc tgagcaagtc ggtacatttt ccccgcgtgc 300
ctcattctct taccttgggt gccctcctca gcctgggttt gcaggacccc ctcggtgca 360
gggcgcctgc cacaaagccg accccggcag gagccactct ctctgtagt tcgctgctc 420
ggcctgctc tccctcagcc tctctctctc tctcctggcc tctttctggt ggcactcctg 480
gtggagtgtt tttcttggga tcacgagctt gcactcgcac acaggcccg agacacacag 540
gcccg 545

```

&lt;210&gt; 543

&lt;211&gt; 754

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 543

```

atctgttatc cacaatgtat tttagttatt cccacaagtc aggggtccag ataaaatgag 60
ggttatcagc taactgatat gctatcattg aggttcatca atgaatttgt acatttctag 120
ttcccttttg tgaagggaaa aatgatgatt ttgcaagacc tagatttttg cttggtttct 180
tgcctccttt tttggcagcc ttcacottct catctccaa acccctgag cccgtagggt 240
ttcatagtgg acaaagaact tgtgtcttt taaaactggg actgatactt ttttgagaga 300
gtatcgtgtc gaaagtgtga tgttctacca ctttaccat aactaatttt aaatacacat 360
tgtccgncen ngatttttgg accaaacaga cgctcacagt ggaggcttat caagggttgc 420
attggggaag aagcctctcc ctctctgtca gcaccagctg gtaaagggtga ctgtacagat 480
gtgcattttc cttttgggat aaatgggtcca cagcactaac tggtaaggct tattgtacag 540
tatattgtca gtattcttct ggttcagcat accattatag tcatatataa cctgtattaa 600
ttgtatagat tgtgcattaa aagctgttac caagttgtca gaacataaga gcgaaaacaa 660
ggcatatgt aatattttgt ttgtaagtat cttttgtatc atagcaaagg aanatgggta 720
aaaaaatcaa ctgtaataaa gtaattttag tact 754

```

&lt;210&gt; 544

&lt;211&gt; 946

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 544

```

ggagttggtt ggccgtgcaa gctaattgtg gtccctgtgac cgccgcagct cctcagcgga 60
gcgcagactg tccctgccctg cagcatgtgc ctaaaggctc aaggggatat tccctctggg 120
tggccactcc caccaccctg accctgtctt tctctctggc ctgctgctct ctcaacatca 180
catacagctt cagctgcctg gaggccagaa ggaaaggcca gtgcagggga ggccctgagcc 240
cgacttagcc agccctggct gttgtattac caaagcaggg tccatgtttg ctgccttaac 300
cctgtctcct ctctgttact cagaggcct catctcagac aaggccagc ctgcttttct 360
tcagccctga ctttctaatt ggctttcccc cctaggtcag tcttgctgga tttgtgcttt 420
tcttttggg tttctctggc cctgagaata gcatggggct tgtaaacctt tgggctagat 480
ccctccttct attgctgttg tctctgctct tccctctcct ggctgtggtt atttattatt 540
agtgtgtggt cactgggagc tgctcctaag gaagcaggga gcaaatccca cctttacccc 600
accttccctg gaaaggcctc caaagcaaag gatctggacc agtttccctg ctgtgtgtgt 660
gccaggccca gagcctgtgg gcaggcaggc agggcatagc gacagtgtgg gacctgcccc 720
cagcttctgc cagcctttat gcccttgct ctctggacgc tctgcaccaa cccagggcta 780
ctgagccacc tccctcctc atgccttccc tgagctttgg tgcattctat ctggactatg 840
ggttgtactg tgaccatccc aacacctcac cctctgtcta caaggaaatg ggaggtggag 900
cctcctggct gagaaattgt tttgcaaatg gatctatttt tgtatg 946

```

&lt;210&gt; 545

&lt;211&gt; 765

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 545

```

ggagtgggtg cgggcgccct tagtcccagc tgctggggag gctgaggcag gagaatggcg 60
tgaacctgga aggcggagct tgcagtgagc cgagatcgcg ccactgctca tctatcagtt 120
gtaggaggca cagcaggaat tcattctagt gttaggaaga atgaggaatt tattaagga 180
cattaggtgg cttggagagt ctccaaggag gcagagatcc aggtctggag tctacatagc 240
cagaaacaaa gcacaaccac aggtgggatt gctcgagtag agcagtggcc actgccagga 300
ctgggcacag agcatggctg gttctgctgg gctcagggtg ctgcaccctc tggttctctc 360
cctccagata ccaggtgttt ctgccactac ctttgccaga tatgtaccct ctaacacctg 420
cttctcttgt tgggtggcttt tggacacaag cctgatgctg gtacgtctga ctatggggca 480
gagctgagcg tccctaccca agctgcaagg gagtgtggga aaacaagatc tggcttttct 540
tttggctagg tgtggcctta tatggggagg cagtcaaaca taggaggtca aattttgctg 600
ggcaccacaa aagaatggca gagccacta cataatactt atatgggctg agcacagtgg 660
cacatgccta taatcccagc cctttgggag gtcaagggtg gaggatcgct tgagggcagg 720
agttcgggag cagcctgggc agcatagtga gacccctct ctatt 765

```

&lt;210&gt; 546

&lt;211&gt; 213

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 546

```

ctttgttagct ggccagaggg acgcccgcagc tgggaccagg cacgcggccc atggggctgg 60
gccccgtctg gcgcgacctc tccgggctct cttttcaaaa agccacgtcg tctgtctgct 120
ggaagccaac agcctccggc cagcagccct acccggggct caacacacag gctgtggctc 180
tggacatccg gatattanaa ggagcgttgc tgg                                     213

```

&lt;210&gt; 547

&lt;211&gt; 666

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 547

```

aggggatttg tcttggtttt tgtgtgaggg tttttgtttt gttttgtttt gttttttgag 60
acggagtctc gctctatcac caggctggag tacagtggag tgatctcgcc tcaactgcaac 120
ctctgcctcc cgggttcaag cgattctcct gcctcagctc cccagagtaac tgggactaca 180
ggcacctgcc accacgcccg gctaattttt gtattttttg tagagacagg gtttctccat 240
gttggtcagg ctgggtctcaa actcccgacc tcaggtgatc cgcccgctc agcctcccaa 300
agtgtctggc ttacaggcgt gagccaccac gtccagccca tacatttcaa ttttaaaggg 360
atgcgcccct gtcccttagtt agtctctcct catctctata aaatgttcag ctactcacct 420
cttgggctat tgctagacat cgttttctct tcttcttttc tgacgcctac aatagatagg 480
acattccccc tctcattctt attctcccaa gtacttttaa ttgcaattta taaagtttct 540
atgtacacat ctaaaaaaaaa ttctgttttg ttttctaatt tcataattgg tgcttcaact 600
tgtcttgtcc tcgaaggaat gagtattttg attgtgttca ttaaactctga tttttctatg 660
tcttct

```

&lt;210&gt; 548

&lt;211&gt; 920

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 548

```

cgggaggcag aggttgacgt gagccaagat tgcaccatta cactccagcc tgggcaacag 60
agcgagactc catctcaaaa aaaaagaatt gaagcccctt cttaccacat tgacctcatc 120
ttacgccatt gtcttttctc acttctatgc ttagaccaca ccagctgttt ctattcctga 180
aaccgggtct ctgtaattgc tgttcccttt gactggagtg cttttccccc atggctctct 240
catggctggc gtcttctctg caggctcttt ctgattctac ctcttcaaag aggccttcgc 300
tgggtgtcct tactcataac gtagatccca ctctccacc gtcatccct gtatcattac 360
cctgcttcat gtttccccca agtggttgatg ggtgtctgag atctgatgct tatttgtatg 420
tttgccact gatggcaggg acccttccct tctggttcac catcctattc ccagtgcctg 480
gaacaaagtt tggcctagag tagctgcttt atatttggtg aatgagtgag gggcttgaag 540
tgtaattgag cagatgggat gtatacatc gaggttaatta acaatacaga tgccaagtgc 600
tacagaatgt gaaagaagga agaaccctt gtgaattgga gtcaataaag aagactccat 660
ggatgagcga ggaggagcag tattagataa atggagagaa aagaaggaaa gacatagtgt 720
gactgggtga ggtttggcac agagttcttg ggaatggct tttgtgtgct agagtttctc 780
atccattgct gaggggtgag tgtgtcgtcc cctctaggac ctttagccag ccagctgggt 840
ggctgacatt ggagggtgtg gctgtgaaaa gtgacactgg gtttagagcag gagtcaaaa 900
cttatagggc tccagaagcc

```

&lt;210&gt; 549

&lt;211&gt; 707

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 549

```

caattttata attactacga tcatcatcac catcattata gccaaactttc attgagaggc 60
ttcccaaaact taacacgtct aagggttaact cttgactctt tcccagctct caatagctca 120
gtaaatggta cctctgttga cccaatgca caggccaaca tcttgcaaat tatccacctt 180
tcttcttttt ctctcacact tcatccgctc cataaatctt ggctgttctg tctccagaat 240
agatctccaa cccaaccaca tctcgccagg agcccgtgt cgacccccc ctcagggtgc 300
cttcatgttt tgatgggtgt gactgacgct cctggattta tataggacac acgtgagcag 360
ctacgtcagt gatgtgctt ctcaactgct ctaccactgt ccccatctca agacaccact 420
accggccggg cgagtggtct catgctgtga atcccagcac tttaggaggc caagacgggc 480
agatcacctg aggtcaggag ttcgagacca gcctggccaa catggcgaaa cctgtatct 540
atgaaaagta caaaaaaatt agccaggcat ggtggtgac acctgtaac ccagctactc 600
gggagggtga ggcagaagaa tcaacttgagc ctaggaggca gaggttgacg tgagccgaga 660

```

ttgcaccact gcactccagc ctgggcaaga aagcgagact ctgtctc

707

&lt;210&gt; 550

&lt;211&gt; 715

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 550

```
tttttttttt tttttttttt gccaatgttt atttttttaat aaagcaataa ttcaaaacaa 60
tttttttttt tactcattca aaaggctata actcaggagt gctgtttata ccagatgaat 120
ctacaaagcc aagaacagga atcacggtat ctcttcagtg agacctgata ctgtgagtct 180
tctcttttct gttgacatat ttgtgcaaca tgctgtagta ctggcccttc ggattgaaag 240
tatacagtga tgaaatttgc tgcactcta tcatgcttgg agtggtatat tcttttgagg 300
gcgagctctc aaagaaacat ttaatatattt tttttggcaa tttagtggca tgttcggggg 360
ctttactttt taggttcggc ggcgccgggt ccaaatagat ttttcagatt tttagcggca 420
gaaaacgaac gggggatagg catcggggga cagatgtaaa attcagaaga ttgatgataa 480
caactgctat caagatccag cccaacacgg gggactgagc cttcagatcc ctcaggaggt 540
cctgcacgtt ctatgtcttg gtctggttgc acggcaccag cggcagctcc ggggcgcagc 600
gcggtatggc gccgagggc aggcgctgcg cgaaggccgc gctcccggtg gccgcgcact 660
cgtaaaanac gcccccgagc agcgccacgg ccaccagggt gaggggcgcg ggtcg 715
```

&lt;210&gt; 551

&lt;211&gt; 2163

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 551

```
ccaagacttt ctgaaacaag acagcttaag ggaatcagcc ttttgctttg tgatgtgaaa 60
atactgtgat ttgacgagcc gcttcctgag gggcaggccc acgtggggag gttgcgccgt 120
gtacatagac ctgccgtctg tgtccttggg caggcccgga tgcttgggtc aactggsggt 180
agaggctgct ctccccacgc acccatgtgc tcatggcttc tgcaagacct ctgctgggta 240
catcggtccc ctacggcgaa gttcagccag ggctctccct cctgagagca tggcggtccc 300
accttctctg ttcccgagcg tcaactacca ggggtggcaag tcttgaggcc agagggtgta 360
gccccagttc agcctctctc tgtgtcctcc agagaagagg gttctttgccc ctcatcaggg 420
ccctgcttgt ggggttttcg ctctggggag gagagtgttg gcatcagtggt gtttggcctg 480
atttcttcag ggggccaagc tcccgggagg accctagacc aggagggccc cccatgtcca 540
tccatccctc ctgctggggc ttggatgtca ggcttggggg ctgtgagctg ggacctcgcc 600
tgagccccgt cagggtgggac aggagcctgc cagaagccca tggggggcca gggcggttg 660
cttctatttt attttttttag agatgggggc ttgctgtgtt gccaggctg gtctcggact 720
cctgggctca agcagtcctc cctcctcggc ctcccaaagt tctggggcta cagggtgtgag 780
ccacttctgc ccagcatccc aggcctgaac agccttgcca ggacctgccc ctgagggggg 840
ctctggtgcc tcccttaggt gggccttgag ctgggtttta accaaacatc cttccaaact 900
cggggtgcga cctgcttccg gacttttctg tatttccaag gagccctccg accagggtga 960
ggctgggtgga gtaaggtcca gcggtattcg ggggtcctct gtcacctgc cctgaaaaca 1020
gcagctccca tcaccttcac tgggtcccga tggagccgtc tcagaggccg aggggcccctc 1080
tgtgtggggg tgggacgcag gggctctcag agcaagggcc acaaagccga tggcacagat 1140
gtgcccctgg gcctggcccg tcacccacat gtggtgcctt gggccagggc gtgcgggcgc 1200
cagagccttc octacacagc ctaagagcag gggcaagact cggccctcca ctacccttg 1260
gaggcctgcc tgggctacat ggacacctgg gtctctttct accccattc accatggacc 1320
aggggcctcc atttctggg ggctcttgcg gcatgtgatt tgggggtccc tgggacattc 1380
ccccgtcagc tccacctgag ccaagtgtcc tgttccctgc ggcccttggc cttccagggt 1440
cctggccagg cagggttcag gcaccccata ctcttcctg tggcacagggt gtccaccac 1500
ccccactggc cacagacacc attctcccc tgggagcagg aggtggagta agttgtacct 1560
ccaggcctgg gtgctgggga gttcctgagg gcatgggtgg ggcaggagtg agtgctcgt 1620
gatcccagcc tcagtttctc tcttgtaact ttctcaaac tgcaggctctc agggcccccg 1680
gtcctcctg ggcagcatgg ggggcagggg ctgggccttg ggggtgtgct ggctctgatg 1740
attccagagc ctgtatccac cttctgggct cctggccagc accccacccc caggagcag 1800
ggagagggtg catgtgttgg ggtcggggga tggcccccct ctcgaagtgt tctgggaatt 1860
ggggggcaacc cttgcccagc ccagccatca agaacttctg atctcctgcc caccaggagg 1920
ggacttagcc atggacttgg ccagtagggc tggggaggga gggctttggc agccaaagtc 1980
cactggccct gccgtgcccc tgagtaggaa actgtccctc aggggctggg tggccccact 2040
gatatatgca aacccgccg tccgagccct gttcctgcct gtgctcctct gtgcccaggc 2100
tggtctctcc ccaaccctag catgtatact ctgccacgga cgtcccggtg gccatgattg 2160
tgg 2163
```

<210> 552  
 <211> 1783  
 <212> DNA  
 <213> Homo sapiens

<400> 552  
 gtccggacgtc tacacccgca gccgtcttct gtctccgct caccctcagg cctgacggtc 60  
 cgagtggagc tgcgggacag cccgaacctc caggtcagcc ccgcgccct ccatggcgct 120  
 ggtgcgcgca ctctgtctgt gctgtctgac tgcctggcac tgcgctccg gcctcgggct 180  
 gcccggtggc cccgcctggc gcaggaatcc tccctccggc ataggacagt tttggcatgt 240  
 gactgactta cacttagacc ctacttacca catcacagat gaccacacaa aagtgtgtgc 300  
 ttcattctaaa ggtgcaaatg cctccaacct tggccctttt ggagatgttc tgtgtgattc 360  
 tccatatcaa cttattttgt cagcatttga ttttattaaa aattctggac aagaagcatc 420  
 tttcatgata tggacagggg atagcccacc tcatgttctt gtacctgaac tctcaacaga 480  
 cactgttata aatgtgatca ctaatatgac aaccaccatc cagagtctct tccaaatct 540  
 ccaggttttc cctgcgctgg gtaatcatga ctattggcca caggatcaac tgcctgtagt 600  
 caccagtaaa gtgtacaatg cagtagcaaa cctctggaaa ccatggctag atgaagaagc 660  
 tattagtact ttaaggaaag gtggttttta ttcacagaaa gttacaacta atccaaacct 720  
 taggatcatc agtctaaaca caaacttgta ctacggccca aatataatga cactgaacaa 780  
 gactgaccca gccaccagt ttgaatggct agaaagtaca ttgaacaact ctcagcagaa 840  
 taaggagaag gtgtatatca tagcacatgt tccagtgggg tatctgccat cttcacagaa 900  
 catcacagca atgagagaat actataatga gaaattgata gatatttttc aaaaatacag 960  
 tgatgtcatt gcaggacaat tttatggaca cactcacaga gacagcatta tggttctttc 1020  
 agataaaaaa ggaagtccag taaattcttt gtttgtggct cctgctgtta caccagtga 1080  
 gagtgtttta gaaaaacaga ccaacaatcc tgggtatcaga ctgtttcagt atgatcctcg 1140  
 tgattataaa ttattggata tgttgacagta ttacttgaat ctgacagagg cgaatctaaa 1200  
 gggagagtcc atctggaagc tggagtatat cctgaccagc acctacgaca ttgaagattt 1260  
 gcagccggaa agttttatat gattagctaa acaatttaca atcctagaca gtaagcagtt 1320  
 tataaaatca tacaattact tctttgtgag ttatgacagc agtgtaacat gtgataagac 1380  
 atgtaaggcc tttcagattt gtgcaattat gaatcttgat aatatttctt atgcagattg 1440  
 cctcaaacag ctttatataa agcacaaata ctagtatttc acagtttttg ctaatagaaa 1500  
 atgctgattc tgattctgag atcaatttgt ggggaatttta cataaatctt tgttaattac 1560  
 tgagtgggca agtagacttc ctgtctttgc tttctttttt tttttctttt tgatgcctta 1620  
 atgtagatat ctttatcatt ctgaattgta ttatatattt aaaatgctca ttaatagaat 1680  
 gatggatgta aattggatgt aaatattcag tttatataat tatatctaat ttgtaccctt 1740  
 gttgaaattg tcattttatac aataaagcga attctttatc tct 1783

<210> 553  
 <211> 1371  
 <212> DNA  
 <213> Homo sapiens

<400> 553  
 gggctgggga gctgggaggc gagcccgagg cctgccaggc ccgggctgca gccgcgtctg 60  
 atcgccgagc gcgcgcgcta gacctccgct cccccagggg gggctgtcgg ggggctgtta 120  
 ggtgcctgga tgacaagtgg acagtttaag ccggttcctc agatccctaat ggagctgccc 180  
 cctgccgagc aacagaggct ctttaacgaa gccgcagcca tcatcaggca cctggagtgg 240  
 acggacgccc tgcagctgac tgcgctggct atgggcagcg aggcctgca gcagcagctg 300  
 ctggccatgc tgggtgaacta cgtcaccaag gagctgcggg ccgagatcca gtatgatgac 360  
 taggcgcac ctccggggag gtggggggcc cctttaaatg actctgtgat tctgaagagg 420  
 tggcttggga gttgggagaa gccagcggga tggcccttgg ggaatctcca catcatcagt 480  
 gtattactag taatgtccc ctggagaggc caccgctgtg cagtgtcatg ttccagaaat 540  
 tactgatgaa gcagcatgtg ttggtggcat gtgcaatgcc tggcatgaca gccctctgac 600  
 tggcccccca gtgaagagta aaggcctgcc tgcgcaggc ttcggaggcg tctgtgagt 660  
 cctctcacc ccatgggtct ggggaagtga tcacgctcag ccgacggtct gaccacactt 720  
 catcctcccc ccggggcctt ctcatcttgg gagatgactc ctcttcagag cacatgctgc 780  
 aggaactggat cccaccccc tgcaggtcct ggggtctcag ggccttggag cagccccatgc 840  
 tggaaatcatg tttacctctt agtgcaaccg tccctaccc agggactgtc gaatggcccc 900  
 acggaggggga cggggggcct gctgagtga gccacaaata ccgagtggac ttgaccccg 960  
 cccccactag gctgcacacc tagactcgcc ctgccagggc ctgctcttcc ccatctgaaa 1020  
 agtctctggta gttcttgagg tttacttctc aaatgaaata tttttagtaa aaagtacagg 1080  
 tatactctcg agatattgtg ggttcagttc cagaccacct cggtaaagcc aacatcacia 1140  
 taaagcaagg aagcgcatg ttttagtttc ccagtgcac taagtcatgt ttactgcata 1200

```

ttgcagtccta ctaaagtgtc aatagcatta tgtctaacaa atatacaaac ctttaatttaa 1260
aaatattttac tgttcaaaat gctgacacag aaacgcaaaag tgagcacatg ctgttggaag 1320
atgggtgcaaa atagacttgc ctgatgccag gctgctacaa accttcaatt t 1371

```

&lt;210&gt; 554

&lt;211&gt; 860

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 554

```

tgatccatta acatggcata tctttccatt tatttaggtc atctttaatt tttctcaaca 60
gcattatgta cttttcaggg tacaggtttt atatgtctta tcagattttt ccctaagtag 120
ttcatatttt ttgggtgtat tttaaattgt ttgtgttat ataaatttgg tgctatttta 180
ttgctttctt aattttaatt tctaattgtt cattgctagt atatagaact ataatagcat 240
tttgtatgtt tatatttgtt cctgcaacca tactaaacta acttttaata gcttttttgt 300
acatccatca gattttctac atagacagtc atattacctg tgaataatga tagttttact 360
tttcccttcc accaccctgg atacctttta tttcttttcc ttttcttttt cttcttcttc 420
ttatttattt attttttttc tgtattacac tggcttgaac ctctagtacg aagtcaaata 480
gaagtgggtg gagtgggcat cttattcctt tgtttttcat agataacctt tagcagttaa 540
ggatcttact agtttgttca gcgtttttat ctgaggtgga tgttgaattt tgtcaaatgc 600
tttttctgta tctatcaagg taattatatg gtttttagct ttagtttgtt aatatgggtg 660
atttatattg ttttttttgt tgtgttttta atgttgatgg ggtctcgctc tgttgctcag 720
gctggagtgc agtgggtgtg ccgtggtttt ctgtaacttt gaactagtgg gctgaaggga 780
tcctctcgtc ttagctcttc aagtagctag gncagtagat gtgtgccgcc atgcctggct 840
aatttttaat ttttttttcc 860

```

&lt;210&gt; 555

&lt;211&gt; 982

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 555

```

agatcacacc attgcactcc agcccgggca acaagagcaa aacttcgtct caaaaaaaaa 60
aaaaaaaaaa aaaaggaagc aggtttgcca ttgtcccagg gcttttctgt agagttccat 120
gctctttttt tttcctttct ctctttcttt tttttttttt tttttgtttt ttgttttttt 180
tgagacgggg tcttcgctct gtcaaccagg ctggagtga gtgttgcaat cacggctcac 240
tgcagcctcg atctcctggg ctcaaggat cctcccatct cagcctocca ggtagctagg 300
actacaggca catgacacca cacctggcta acattctgta cttttttgat gtgctccttt 360
cttttccctt gttttcctcc ctctcctctg tccatcctac tggctcccag gaggaggaag 420
atgacgactc ctccacagcc tcagacagt atgttctcat ccgggacaac tacgagcggg 480
cagagaagcg gcccatcctg tctgtgcgta agtcttgggg ttctcggggg cccgcacttc 540
cctccggggc acagggttcc ctttcttcat ggagagggcc ctggagaggc tccccgcaga 600
ttctggcatt tctgccccct gggttctgag gcaggccctg tggtagactc aaaagagcac 660
aggggtttcag tctggggcac aggcctggcc cctgctggct tggccactac tcagatttgc 720
agctatggtaa gttccttgac ctgtgcacct cagtttcccc ccataccctt tctgttgtt 780
gagatgatta aatgcctggg tcttgacct gtgcacctg gaagctcaag tagatgtctg 840
tctgtggcat ctcttcttcc tctgacctg tgcctcatg ttcatatag cccctgcctt 900
gctgtctcct cctggctgg ctgggttagg ctctgacgcc tgctctcctt ttcacccag 960
caggagcatc tctgaattcc ct 982

```

&lt;210&gt; 556

&lt;211&gt; 765

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 556

```

aggagtcca gaccagcctg ggccatgacg aaacctatc tctacaaaaa tttttttttt 60
aatttataat gagaaaataa atttacattt ccttcttagg tctctagagg atccattttt 120
ttctgcaaa gcatctgtcc acacctctt accatgcttg tatgccttaa agatctagct 180
tggcctgtca gcagtgtgct tcattgggaa tcgatgcagc accctcctgc ctgcaagctg 240
actaaaagcc ttttcttctt ccaaagactt tgggaccatt tgtattcacc agggaaaggg 300
tcaaacaact cctgcatctt ctccctgc ttttcttggc acatctactg atactagctc 360
ctaatttggg caagaaaaaa gtcaacaact ggaggtagag tgtgttgacc ctggactcac 420
cctgaaagggt aagggcacaa gagatagttg tatttagctg tatcttgta gaaaaataca 480

```

```

tttgtgtagc caggcgcggt ggctcacgcc tgtaatccca gcactttggg aggctgagcc 540
gggttgatca cgaggtcagg agttcaggac caccctggct agcgtggtga agtcccgtct 600
ctacgaaaaa tacaaaagat tagccgggcg tgggtggtggg tgccctgtggt cccggctact 660
tgggagactg aggcaggaga atggcgtgaa cccaggaggc ggagcttgca gtgagcagag 720
atcacactgc actccagcct gggcgacaga gtgagactcc gtctc 765

```

&lt;210&gt; 557

&lt;211&gt; 845

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 557

```

cttttcatte tgaggtcttg gccccctgg ccaccgcaag gactctttgc ttgtcagggc 60
ttgcaaaaac caaccttcga gaaagaaaag ggaactcttc acgttgaatg ttgactttgt 120
gtgtatgcgt gtgtgtgtgt gtgtgcacgc gcgcgtgtgc gtgtttactt catggaattt 180
tgttttgtga aattcccctc caatcgtgtc agaatttacc tccatgcccc agtcacactg 240
ttggttctgc gctctgaacc tgggtgtagc tcatttgaag gactctcttc tgcgtttcct 300
aacagttatt tgggtgtctc aagagttgag gttgtggagg gttgggagaa actgaagttc 360
tatacatttc catagagttt acatcctgca gttaaaaggc agggagggtc cagcccggtc 420
cccacagctc caggccatcc cctacgggct gccacagtg cccctctttc tctagccgaa 480
tcttttctga acagcccggg aaaggaaaac ggattcactt gctgattttg ttacggcg 540
aagcaccttg ttccgttctt ttttcagggt cagtttgttg tgtaaatggc ggttttttct 600
gggtgtgagct ttgggtgatg tggcagggtc cctttgaaga gatgggtcca cctcgtggtc 660
tgagaacaa accagagaag agtcttgggt tgccagaggc cccctccggc ccacgtcacc 720
ctgagttcac ccctctgatt gctctgctgt caagaagcac gtttccacca gctgtattca 780
acactacaat gcatttttta aactatattt gcacccaaga caataaagac acctattttt 840
ttttg 845

```

&lt;210&gt; 558

&lt;211&gt; 415

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 558

```

agataggggt gggacagggt gctttggaat gaaagagtga ccttagaggg ctccctgggc 60
ctcaggaatg ctccgtctgc tgtgaagatg agaagggtgct cttactcagt taatgatgag 120
tgactatatt taccaaaagcc cctacctgct gctgggtccc ttgtagcaca ggagactggg 180
gctaaggggc cctcccaggg aagggaacac atcaggcctc tcgctgaggg agtagcatag 240
aggatccatt tctacctgca tttcccagag gactagcagg aggcagcctt gagaaatgca 300
ggtagaaatg gatcctctcc ccaacctctc ctctaacca ctagagattg cctgtgtcct 360
gcctcttgcc tctttagtaa tgcagctctg gccctcaata aatgcttctt gcatt 415

```

&lt;210&gt; 559

&lt;211&gt; 722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 559

```

gctgaatcta aagggttggt aattttatta tatgtgaatc atctctcaac aaagtactgt 60
taaaaaagga aaagctccca gaggcaaagg gtggcttgct ttacctgcca acttggtgta 120
gacgtccttg ctttggggat gctcctggct ttcattgctt tctttccaaa cagtccgaag 180
aggacattaa tgttgagct cttggcaagc agcagcctga gaatatctcg aacccttctg 240
atgagagcac aacctcagct cccccagAAC ctctctacga ccccttcacg gactctgaag 300
aacggcagct tgagggcaat gaccccttga ggacactgtg agggcctgga cgggagatgc 360
cagccatcac tcaactgccac ctgggccatc aactgtgaat tctcagcacc agttgccttt 420
taggaacgta aagtccttta agcactcaga agccatacct catctctctg gctgatctgg 480
gggttggttc tgtgggtgag agatgtgttg ctgtgcccac ccagtacagc ttccctcctt 540
gaccctttgg ctctctctcc tttgtactct tcagctggca cctgtccat tctgcccac 600
atgattggta actgtgatct ttcttccttg ttagattgta agcctccgtc tttgtatccc 660
agccccctag cccagtgccct gacacaggaa ctgtgcacaa taaaggttta tggacagaa 720
ac 722

```

&lt;210&gt; 560

&lt;211&gt; 981

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 560

```

cccgattceta cctcccaagg tgctgggatt acaggcctga gccaccgcgc ctgggtcaaaa 60
aggggggtggg tctaactttc atcttagggg agctgtgaaa atgaaaggag atgatacatc 120
cacagcactt ggacaggggc ttggcataca gtacatgctc aataaaggga gctgttgcca 180
cctcttgtgg tccttgctag ggagggtgag gccttggcgt ggaaagttag aacagagctg 240
gtccctactg aggtggacac tcttcttgct ccctgggagg gcaccgcggg cccagggcag 300
gcgctgagtc gcgtgtgctc ctctctgatt gctgcgcagg tcggccggct ggcgagctg 360
ggcgcgcgct caggacgggc caccaggccg ggctaggaag gtgtagtggg cctcagcgcc 420
gccaaaggcg gtcccggtc ctgtaaccgt tgcagtcttc tgtcccttca cccaggtggg 480
caaacgcaga ggcggaaca aactagccct caagacggga atagtagcca agaagcagaa 540
gacggaggat gaggtattaa caagtaaagg tgacgcgtgg gccaaagtaca tggcagaagt 600
gaaaaagtac aaagctcacc agtgcgggtga cgtatgataa actcggcccc tgggtgaaatg 660
acgcccctcc cccacctgcc catggcctgg gactctctgc gatgtacata actatttaat 720
gcagcggcag cggcgacagc ctccctgag aggaacttaa agcagaagga aaccgagatg 780
cttcccgcag ccgtggacga ttctccagga ctctttttt accttgagca cttgcctcgt 840
gagacttcat agaacagtgg ttactgtcc cccctctctc acctctcat tctctctggc 900
tctttctgtc ttctcttctt caccctctc cctcccctta gccatcactt ctgggaagta 960
aagaacttga cttagtgcg g

```

&lt;210&gt; 561

&lt;211&gt; 826

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 561

```

cataactgca taaaatttta gaaatttgtc aagtcaaacc tttttactta aaaggcaaac 60
aatagactgg aaactatatt tacaatacat atcaagagat ttttttaacc gtaaggactt 120
tttcttatta ataagattaa gaccaagaac tcagtagtca aggagactaa gtaggaacaa 180
gcaatttttt tagaaaaata caatactttt aaacaatctg aaaagatgtt caatttctca 240
gtaatcaggg aaatataaat taattcaaga taccatctaa cacatcagag tggcaaaaat 300
taaaatacct tgtgaaaagt gttgataagg atacataaaa tgggaattat actatttgca 360
gaagtataaa aagctatgtc tcctttggag agcaatttgg caaaactctac aagggtataa 420
tgtgtatatt ctgtcccagc agtgccattt gcagttatat aaaactcttt tatatttgct 480
tatggagtca ttgcaattca ttgcagtact talttggatt attgaaaaac tgttcggaga 540
ctgggcgtgg tggctcatgc ctgtactctt gacactttgg aaggctgang tgggaggatt 600
gcttgagccc aggagtggga gaccaacact gacaatatag tgagaccctg tctctacaaa 660
aaaattaaaa gtagccaggc ncagtgttgt gcatctgtag tcctagcgac tcaggaggct 720
gaggtgggag aattgcttga gcccaggagg tcaaggctgc agtgaatcat gatctcatca 780
ctgcnctnctn gcctgggcaa cagagcaatn ccctntctca aaaaag

```

&lt;210&gt; 562

&lt;211&gt; 735

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 562

```

tttttttact cataacagat ttttgttgtt gtttttaaaag aaaagctaac atttgagtag 60
tgactgcgcc aagcagtcaa gcacagcccc tcgggctcga tccccataac cactctaggg 120
ttaggtatta cccacgttta aggaacaaaa atcgaggga aaatcttata caactactag 180
taagtagtca ttccatttta gcagagcgaa tgagcgaatc cacggaaggc cggggagcga 240
cgtgagtggc gagaagcttg gagtgcgccg ggacggcggg cggagctggg cgccggggct 300
aatgggcgga gctctccagg gacagctggc ccgcccagg ccagcgcggg gcccgctgg 360
ggagtgtgga gtccccttgc cccaccctcg cccacgtcac ccgactggca aacctttcag 420
ctgtcacagg ctgcggagag acaatccgta ccctcagtgg gttcccttcc agtgggttcc 480
tttgteccca ggcccattat tccgtccctc cctcttccct gatgtatttt ggcgcggtct 540
cctggctctg cgggcccagg gctccggatg aggtctcccg ccgtcccgac ccccgaagg 600
ggccagcctg gtgtgcctt cgttctctg ccacccatt cggtaggggc tcccgttccc 660
gccacgcccc ctgaagttgt gctcgcgcgt ctcccagga ctcccccgcg ccggagaggc 720
ccgcaggacc gccga

```

&lt;210&gt; 563

&lt;211&gt; 626

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 563

```

aagttggctt cagctgaaga gctgttttgt gaagcatccc aggcttgccc aggagagaca 60
tttgccacta tgtcacctta tctgggcttg ccctggggca ctgagacagt tgtttggcag 120
ccccgccca gccaggggct catccttctc agctcttgct cctgggaggc ctctgcttgt 180
cacttcccag agattgcaga gctcttccgc cctctctgga tgagggaaca gaagtggagg 240
aaacaaaaga agcagcagca cgcacagtcc tgtcgtggg tgcggagaca gcctggcaaa 300
gtcccactca gccatggcct gatgcaggcc ccaggccctc ctttcttggg tgtcaaata 360
ctgtgtcctg gacatctgat gcaccacctg ccctgcctgt tgcaaacgtg atgctcccg 420
atggagtgga gaaactagga gactgggaca aagcaaaagg ctgcaaaaca cccagaagcc 480
catcctcaga agactggaga aatgattgag gaatgcatgg gcaccgtggc cctgtgctcc 540
atcacaaaaca cctctcagaa acaacgtggg atgaaaaagc aagacagttc atacagtatg 600
atgccatttt tataaagctc aaaacc 626

```

&lt;210&gt; 564

&lt;211&gt; 946

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 564

```

agaaaagtgg aggtctagag gaggggggtg tcaactcacc actgggcagg ggcagggttag 60
gaaggatttg cgagaggaaa agctcaaatg gtgtttgatg gatgatgaca gtttgggggt 120
gtgtggttgt ggaacttgct ggcagaggga atgactaagc aaaggatagg gaggtgaat 180
ggtgtggcct gttcaggga ccctaaacca ggcagacagg ctggaacca cagtgtgagg 240
ggatgaagtc ttgcccacta ttgaagaagg gtggccatgc ctgctgcatt tggaaacact 300
ggtcacttct tggatgcac tcctcccctg gtttgaggag cactcccctc aatggagcag 360
ctcctaccte tctggatgct tcccctctgt tgtttgtacg agattgtctt tctctgcccc 420
ctctttaata ccagtgttcc tcagggttcc ctccacgggt tttctcactc tagactcctc 480
tctaggaatt tttccacagc agcgataccc caaatgacat atctcatcca gatgagctct 540
atcctgaact ccagatgtgt acatggatcc agctagtggg catctctacc tgataggagt 600
ggccatctgc tcctaaact ttcatgcatt ctctacttcc catgcttatg gaaagcattc 660
atggccgggc gcggtggctc ggcctgttaa tcccagcatg ttgggaggcc gaggtgagt 720
gatcacctga ggtcaggagt ttgagaccac cctggccagc gtggtgaagc ctgctctcta 780
ctaaaaatac aaaaaaattg gctgggtgtg gtggcgggtg cctgcgatcc cagctgctcg 840
ggaggctgag gcaggagggt cactggaacc tgggaggcgg aggttgcaag gagatgagat 900
cgtgccattg cactccagcc tgggcgataa agcgggactc catcac 946

```

&lt;210&gt; 565

&lt;211&gt; 495

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 565

```

atctttacaa caaatgttgc attaacatat aacttttttc agttgacttt accaaaatta 60
agcccatctt tagtagatac tgttttaaca tgtgaaagaa atacgttata aacataccac 120
aagatatggc tataaaacaa tgagatcagt atccattttt gctttaaaga attggcctta 180
ttgcttcagt gtcacatctc atactcaagg gcatttacta caaagaaaga gttctccaat 240
attgtgttct tgttgctgcc tgcctatatt acacatgtac ctgctactta aataggaaag 300
cctttcaatt catggacaat acacottggg ggtaaccagg cttttatttt tatttttttt 360
tcttagtgta aaaactgtac tgttttggaa atgtgctgtg aaatattagg ttttaactgtg 420
tagatcctag aataaggga tttatataga tgaagttgta accaagaaac tggttattaa 480
aaatttattt actcc 495

```

&lt;210&gt; 566

&lt;211&gt; 302

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 566

```

cggagcttgc gcagaagacc cccatcaggg tgcgggggtg agttgcggct ccaggggccat 60
ggcggaggag cagggccggg aacgggaact ggttcccaag ccgtcgggtg tgttctcca 120
cccagacctg ggcgtgggag gcgctgagcg gctgggtgtg gacgcggcgc tggcgtgca 180
ggcgcgcggg tgtagcgtga agatctggac agcgcactac gaccggggcc actgtttcgc 240

```



cgagagccgc gagctaccgg tgcgctgtgc cggggactgg ctgccgcgag gcctgggctg 300  
gg 302

<210> 567  
<211> 580  
<212> DNA  
<213> Homo sapiens

<400> 567  
agctgtttca tgaagaatc aagattataa cctggatatt ctgactcctg gccagtgct 60  
ttttcttact ttgtagctac actttgaagt aagattcaaa ctgttatcca ctcaattgcc 120  
ttattcttga ggatgtagt aaggaagaaa aagttttctg gaattccgta aattatattt 180  
taagcttatt tcttcaaaat tattttcata tatcacagat atatcattgg aagatataat 240  
ttgcatatat gtccattatc agtggtccta atttgggtatt acatgtattc tatttttttc 300  
tgaatgatag catgaaaagt gtcaaagtgg ttgtccgct agcgtctgtc tgcagaactt 360  
tcaggatgac tattaattcc tctcagatgt cttttttgag tggccaagc ctgctgtttt 420  
gaacccacag cagtggagat ttgtattctt atttacagtt gtgtactata aagtgtgtgt 480  
tacatagggt ttgtgtaata attatttcta aatattattt agatttgtat ttagacatga 540  
tttatatcta atatagatac aaagtctgtg tctaaatatt 580

<210> 568  
<211> 587  
<212> DNA  
<213> Homo sapiens

<400> 568  
gtctcagggg aaccatctct gcttattcct ctgccacgtc tttcccttct cctctctgct 60  
ctcataaaga agaatgggag atgaaagtgg aggggcagct gaggtggggc ggcatcaggc 120  
tgatacaaca cccaggggaa ccctgcttcc atgtaaccct gaccttaa atccatcccta 180  
taataaagag ttgggcacaa cagaagggaa aaggaagtat tctgcaaatt gttttccata 240  
acagtgacag ggacacactt tgcaatgtgt aatttgtgct gtatgacatg catttgggtg 300  
tgtctgggtc ggtacatcat gtgggtgtcc tggtatgcat tttgcagact gacactctgc 360  
ttaaccagtc cttccgtgct gtgctgtttt gtaagctctt aaccagaatg caaaaatgtt 420  
aaataactgt ctggttttat tttccagccc tctgggatga gtctgatgac agtaactcag 480  
aaattgaggc tgccttacgc cccagaaacc ataacaccga tgattctgat gatttttatg 540  
actaacgtgc tgtgacattg gtttcaaata aagtctttaa acaaact 587

<210> 569  
<211> 1788  
<212> DNA  
<213> Homo sapiens

<400> 569  
cacaggcgcg tgccaccaca cccacctaat gtttgcattt ttagtaaaga cgggggtttca 60  
ccatgttggc caggatgggc tcgatctctt gacttcgtga tctgcccacc tgggcctccc 120  
aaagtgtgga gattacaggt gtgagccacc acgcccggcc gagggcattt tcttctacct 180  
ccaatagata catttagaat ctgtctcttt tacttcattt cccacagcta acagtccatt 240  
ccaggccacc atcacacccat catcttttgc ctgaagtgc taagcctcca acttgggtccc 300  
taaactttct taccagtgga gctctacaca aaccagacca tgctccctcc ccattaagc 360  
ccctcacagc ttcccagtg attctgacag tgctctctgc acctcttcgc cctgtcccac 420  
aatgcatgag ctctcttatt ctttttttta tgagacaggg tctcactctg ttgcccagcc 480  
cagattgtag tgggtcaatc atagctcaca acagccttga catcctgggc tcaagcgata 540  
cccccatctc agcctcctga gttagctggga ctacaggcat gcgctaccac gcttgggctaa 600  
ttttttgtat tgtttggaga ggggtttccc tgtgttgccc aggctgggtc taaactcctg 660  
ggctcaagtg atccaccac ctccaggtcc caaagtgtct ggattagaag tgtgattcat 720  
gcctggcggt ttgttttgtt ttgttttgtt ttttttgaga caggatctca ctctgttacc 780  
caggctggag tgcagcacta tgattatagc tctcccaagt agctgggact acaggcacat gctaccatgc 840  
tgactctcct gtagctgtag tctcccaagt agctgggact acaggcacat gctaccatgc 900  
ccagcttaatt ttaattttt tttttataga gataggggtg tgctgtgtt gcctaggctg 960  
gtctcaaaaa attcctgggc tcaagcagtt ctcccacctc accctcccaa agtgcctggga 1020  
ttatagggtg gaaccacggc actgggcctg ccttattctt ccttaaattt ctcaagtaag 1080  
ccatctcttt tctacctca aagtcttgca tttgcagttt ccttggcctg gaatgctgtt 1140  
tccttcctac tggcttcatt ctccaaatct caacttaaat gtcacctcca cagagaacct 1200  
tatctgatta aaaggagttg gatcccccac gaccaccact attctctatc caatgtcttt 1260

```

tcttattagc atttatcata atatgcaatt attctgtttg ttttgttggt cctcaagtgt 1320
ttcttctatt agaattgaag ctccctgaag gcaaaaacca catctatctt gttcctgtag 1380
ttccaatgca tagaacacaa attctccgat tctggtggct aatagagtag ggactcagta 1440
aacattttta aaataaaata aatgtactca actataccaa aagattttatt aagcaaaaaa 1500
ggtaagatac aaaacagtat gtagtgtgga attccattta tattttgtta aaattttgtg 1560
cagacacaca cacacacgtg catgcacatt aaggatacac aaaaaactag taactgtggt 1620
tgcccctagg atagggacta tgactcaagg gagagaagat agaagtaatt ttaattttat 1680
aatcattgtt cctatttggg tttttgtttt actacatgtc tatatttctt ttataataat 1740
aaaaacacca tctagtactg ttatttttaa aaggaaatat ggaatacc 1788

```

&lt;210&gt; 570

&lt;211&gt; 3772

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 570

```

tccctgtctc agtaacctca ggtgtcccac accttttggc ctcccagtgat ctccctccac 60
ccccattcc atttgaaga tctccatgtc tctttgcctg gaggttttct gcgttactta 120
cccctgtctg aggaataggt cagtctgcct tctgggaccc cagggtgtgt ggccctccta 180
cctctctgtt ttttgttttt tgtttttttt ttgcaagatg tagattagaa ctgcccatt 240
tggttcttgg agagagtcag aggcagagta caagctgtag ggagcgggtg gaggggagtg 300
ccaggcggaag cactctccaa ggtcacccgg ctggtggccc cttcctctgg ggaggaggcg 360
cttaccttgc ttggaatcat gggttggcg gagaggctgg gcaaagcagg ggtgggagag 420
cactccagct ctgtctggtt caccctccct tgttctctgg tgctctgctt caccctggcg 480
ccagcgagag aaaggtcagg tgtgtttgcc tgagccaggg gaggagcttt ggaaaaacct 540
gtctccaggc cacagagaag gaatggccac ctctctccat tagtgtgatt tattgtgtc 600
acagctgagc tccagggggg cagactcagc cggtcaagc caaccagctg ttgatctgat 660
ggggccagcc cagccccggg cctggttgca caacagtggg gcacctgcca aggcaatgat 720
ggcagagcag gtgatgctgt gatcgcatgt cctgaaggac ctggatggca gggactggag 780
ggggtgggcc cccctgcaat atccagaaga acggttttct acctctgagc tgggtcttga 840
ggcagctctg tagagcctga ggctcagaac atccccagg tcccttctgc tctaacagtg 900
tgagcttggg aagacccag cctctctgtc agtttcttct tctgaataat caagtccttc 960
ctagctttgg ggtaagctgg gcctcctgct cactgtgtta ccctggaaaa gccacttaag 1020
cctcagtttc atcacctata aaataaatgc atcaagatgt tttctgttat ctacacagg 1080
caaagtata caatggacat cgaagcaccg tgacaattct ccatgtagcc attatgctat 1140
aaatgttggc atcactatcc atttcttgtt ctctcattc tctgatggcc ggggtcctct 1200
tgtctctgtt agacttgggt tcatgttctg acctgtttgc agaccacctg cagtgtcctc 1260
tgtaaaatgg gcatctcaca gcctgcctgg ctgaattgtt gggaggctct aagcagctct 1320
ttggaaccac tgagaccctg gaatagggtg gaattgctgc caagtgtgga gagtgggac 1380
caggctcagt gcaggtaaca acgtttaaca gcttaccgca cctgaggcct caaggaggcc 1440
agggacttgg caatctgtgc tataaatgaa gagaatgggt acacggccac atgctggcca 1500
ttcaagccat gtcagtggca tccggaagggt ggtggaggga aggtaagagt aaccagggg 1560
gggcttgcct cgcagggtct tcccgagggt ggcgagctc tcccagagggt gagaggaggt 1620
ttggttactg ggaggagaaa accaagaaa gctggagagg aatgggctct gttgtgggtc 1680
aagcctggat gtgagttctg agaacagtca agaattgcat tctctccaag gcattcactg 1740
tgggggaggt ggggtcaaatg ggtttgccct tgtcaccagc tgggtgacct gactctcaga 1800
gtacattgcc ctttggcagt tctcagaacc tctgtgcacc atggctcagg ccttcttgaa 1860
gccaacactt aaggaatgga cctctgggg cccacctctt tccagccctg ccttataaga 1920
ccccagggac ctggcacctg caaccatagc aggaggcagg agccagcgtt cctcaggatt 1980
caggacctct gagtgggaca aatggggctt gggaactgcc actttccctg cccagtggcc 2040
atacgggtta tgcagctgag gactgacttg ggctgggggt catggcttct taggtgcttc 2100
tggcttctgc ttcattggag cccctttcca gctgcaagcc aacaccagga ggaactgatc 2160
tggggacctg gagtccaagg ctgtaaaact ccacaaaggg cagagctggc ggagctggag 2220
aaccctattc tgggaagctg gtggtgaggg cctctgcctt tgatcaccag gaaaacagag 2280
tgtgaagagg gggagtggca ctctccatcc agggcccagg caagcagcac ctccctgctc 2340
tctgcactc ctggacacaa ccagcagctc ctgccatgga cagggtgtac ctggcgcca 2400
gccccagggt ggacgtggac ccgttctact atgactatga gaccgttcgc aatggggggc 2460
tgatcttcgc tggactggcc ttcactgtgg ggctcctcat cctcctcagc agaagattcc 2520
gctgtggggg caataagaag cgcaggcaaa tcaatgaaga tgagccgtaa cagcagtttc 2580
cataccttcc accccactgc tcccagaga gaaatgtgac aatgagcttc agctctgtcg 2640
aatccggact acatggaacc tctctgggtt ggcttctcaa ccgatttcag agttgtgagc 2700
tgagaagaa cagcaggaga gaggccacag ttattcaggg gactcctgcc ttgctggggg 2760
cgtccacagc cctgaccaa ccatcctggt gtcactgctg agacagcagc ctgaacagg 2820
gcaatgggac cccagagact gcatctgtac agtcggagcc ccagggttct agaccctttg 2880

```

```

ctccagtgat cttagagcca taatattatc atccaaaatg atgagagagt aagtggcaag 2940
catacctaga catcttctga gccagcaga cagaattttg gtttaaggag aacctgggta 3000
gtataatgac acataatatt tttttatata taggcacac agtctatgaa ttgtactgat 3060
tcatctcatc tcaagaagat ggtattttag atgtatgtgt acataattga agccaaaact 3120
gtttattttg tgtaattttt tgtgcctatt agtttctgaa tatctgtgca taaaagcttc 3180
tgtttctctg cctgcacaca tttgtgggta cacactatac acctatgtgg ggtaggagg 3240
gggaatgggc atatttggtt gcatttacct tgtgtttggt cctaggaagg gatcttggtg 3300
atcattccag cccagctctt tcacctcaat ggtgaagaaa ctgagggtcca gaaaggcaag 3360
gtgacttgte acaggtaaca cagctggcta tggagacaga ggtgacacaa gaacctagg 3420
tttctgattt gtagatgaga actctttcta taattataaa atcaattata aattttggg 3480
agggaagcag ggagatcctt gttttttcct cccccaactg ataagtaagt actaagaagg 3540
tcaatcttga attagctata taataccaaa agttaagttt ttcacacaga cctgggttcag 3600
tattgattcc ttttatgaaa accctgttta tactcaagtt gtcaaagaat tccagagggc 3660
atatgaagcc attgttaaaa taattatatg cttttgtttt tgaagaaaag tatccaaaat 3720
atataagett attgtttgag ttaaacaaaa aaaacatctg ctgtttctca gc 3772

```

&lt;210&gt; 571

&lt;211&gt; 1617

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 571

```

tgcccttagcc ctggattcca aggcatttcc acttggtgat cagcactgaa cacagaggac 60
tcaccatgaa gttggggctg tgctgggttt tccttggtgc tattttagaa ggtgccag 120
gtgagggtgt gttggtggag tcagggggag gcttggtaca gctggagg 180
tctctgtga agcctctgga ttcacctca gtagttatga aatgaattgg gtccgccagg 240
ctccagggaa ggggctggag tgggtttcat acatcagtca gactggtctt gtcatccact 300
acgcagactc tgtgaagggc cgattcacca tttccagaga caacgccaa aactcagtg 360
atctgcaaat gcacagcctg agagccgacg acacggctgt gtacttctgt gcgagatacc 420
cgtttagcagc tgctggaact tttgaacact ggggccaggg aaccccggtc accgtctcct 480
cagcctccac caagggccca tgggtcttcc cctggcacc ctctccaag agcacctctg 540
ggggcacagc ggccctgggc tgcttggtca aggactactt cccgaaccg gtgacggtgt 600
cgtggaactc aggcgcctg accagcggcg tgcacacctt cccggctgtc ctacagtcct 660
caggactcta ctccctcagc agcgtggtga cctgcccctc cagcagcttg ggcacccaga 720
cctacatctg caacgtgaat cacaagccca gcaacaccaa ggtggacaag agagttgagc 780
ccaaatcttg tgacaaaact cacacatgcc cacogtgccc agcacctgaa ctctggggg 840
gacgttcagt ctctctcttc ccccaaaaac ccaaggacac cctcatgatc tcccggaccc 900
ctgaggctcac atgctggtg gtggacgtga gccacgaaga ccctgaggtc aagttcaact 960
ggtacgtgga cggcgtggag gtgcataatg ccaagacaaa gccgcgggag gagcagtaca 1020
acagcacgta ccgtgtggtc agcgtcctca ccgtcctgca ccaggactgg ctgaatggca 1080
aggagtacaa gtgcaaggtc tccaacaaag ccctcccagc ccccatcgag aaaaccatct 1140
ccaaagccaa agggcagccc cgagaaccac aggtgtacac cctgccccca tcccgggagg 1200
agatgaccaa gaaccaggtc agcctgacct gcctggtcaa aggcctctat cccagcgaca 1260
tcgcgtgga gtgggagagc aatgggcagc cggagaacaa ctacaagacc acgctcccg 1320
tgctggactc cgacggctcc ttcttctctc atagcaagct caccgtggac aagagcagg 1380
ggcagcaggg gaacgtcttc tcatgctccg tgatgcatga ggctctgcac aaccactaca 1440
cgcagaagag cctctccctg tccccgggta aatgagtgcg acggccggca agcccccgct 1500
ccccgggctc tcgcggctgc acgaggatgc ttggcacgta cccgctctac atacttccca 1560
ggcaccacgc atggaaataa agcaccacac actgccctgg gaaaaaaaaa aaaagag 1617

```

&lt;210&gt; 572

&lt;211&gt; 1616

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 572

```

gccccagccg tgagattccc aggagtttcc acttggtgat cagcactgaa cacagaccac 60
caaccatgga gtttgggctt agctgggttt tccttggtgc tattttaaaa ggtgtccaat 120
gtgagggtgca gctggtggag tctgggggag gctgataca accagggcgg tccctgagac 180
tctctgcag aggttctgga ttcccgttt gtgattatgg tgtgagctgg gtccgccagg 240
ctccagggaa ggggctggag tgggtagggt caatgagaac cgaggcttat ggtgggacaa 300
gaaattacgc cgcgtctgtg acgggcagat tcacatctc aagagatgat tccaaagcca 360
tcgcctatct gcagatgagc agcctgaaaa ccaggacac aggcctttat cactgtagta 420
aacattacta tgatgatact ggttatcagc aatacttcca acactggggc gagggcacc 480

```

```

tggtcatcgt ctctcagcc tccaccaagg gcccatcggt cttccccctg gcacctcct 540
ccaagagcac ctctgggggc acagcggccc tgggtgcct ggtcaaggac tacttccccg 600
aaccggtgac ggtgtcgtgg aactcaggcg ccttgaccag cggcgtgcac accttccccg 660
ctgtcctaca gtctcagga ctctactccc tcagcagcgt ggtgaccgtg ccctccagca 720
gcttgggcac ccagacctac atctgcaacg tgaatcaca gccagcaac accaagggtg 780
acaagagagt tgagcccaaa tcttgtgaca aaactcacac atgcccaccg tgcccagcac 840
ctgaactcct ggggggaccg tcagtcttcc tcttcccccc aaaacccaag gacacctca 900
tgatctcccg gaccttgag gtcacatgcg tgggtgtgga cgtgagccac gaagacctg 960
aggtcaagtt caactggtac gtggacggcg tggaggtgca taatgccaag acaaagccgc 1020
gggaggagca gtacaacagc acgtaccgtg tggtcagcgt cctcaccgtc ctgcaccagg 1080
actggtgaa tggcaaggag tacaagtga aggtctccaa caaagccctc ccagccccc 1140
tcgagaaaaac catctccaaa gccaaagggc agccccgaga accacagggtg tacacctgc 1200
ccccatcccc ggaggagatg accaagaacc aggtcagcct gacctgcctg gtcaaaggct 1260
tctatccccg cgacatcgcc gtggagtggg agagcaatgg gcagccggag aacaactaca 1320
agaccncccg taccgtgctg gactccgacg gctccttctt cctctatagc aagctcnccg 1380
tggacaagag cagggtggcag caggggaacg tcttctcatg ctccgtgatg catgaggctn 1440
tgttcaacca ctacacgcag aagagcctct ccctgtcccc gggtaaata gtgcgacggc 1500
cggcaagccc ccgtcccccg ggctctcgcg gtgcgacgag gatgcttggc acgtaccocg 1560
tctacatact tcccaggcnn ccagcatgga aataaagcac ccaccactgc cctggg 1616

```

&lt;210&gt; 573

&lt;211&gt; 1463

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 573

```

tctctactaa aaatacaaaa aaaaaaatt agccgggtgt ggtgttgtgt gcctgtaatc 60
ccagctaatt ggaaggctga agcaggagaa tcacttgaac ccaggagggtg gagggtgcag 120
tgagctgaga tggcgccact gcactccagc ctgggcaaca gagtgcagact ccgtatccca 180
aaaaaaaaaa aaaagtcatt gaattaaaat gtatttttgt tttatttgaa tgacattctt 240
gcagaaagta agtttcattt tctattattt tccctaccag ggaccagat ggaaggatgc 300
tcttagatat ttttgatgaa aatcttcacc ctctttcgaa atccgaagtg ccaccagatt 360
atgacaaaca caaccagag cagaagcaga tttaccgggt cgttcggaca ctgttcagt 420
ctgctcagct gacggctgaa tgtgccatcg tcacctgggt gtaccttgaa agacttttaa 480
catacgaga gatagatc tgtccggcca actggaagcg gattgtttta ggggcgatcc 540
tgctggcctc caagggtgtg gatgaccagg ctgtatggaa tgtggattac tgccagatcc 600
tgaaagacat cacgggtggg gacatgaacg agctagagcg acagtctctt gaattgctgc 660
agttcaacat caatgttctt tccagtgtct atgccaagta ttattttgat ctctgttctc 720
tggcagaagc gaacaacctg agctttccct tggagccctt gagcaggagg agggctcaca 780
agcttgaggc catctctcgc ctctgcgagg acaagtacaa ggacctaaaga agatccgcga 840
ggaagcgctc agccagtga gacaacctga ctctgccccg gtggtcccca gccatcatct 900
cttaactacg gaggcccgcc ggaggccaca ccacccctta gtttctcctt tagtttgaga 960
aaagacagac ttgggggtggg tttgtttttg ttttttcttt ctttttcttt ttttacgcat 1020
agctcgtca agctgcctgg atgagcgccc atgcagcaag gcttggaggga agcgtcagt 1080
ccctggagat ccagctcgc tctccccact gtcagcaaca gcacttcctt cgtggaggaa 1140
gtggactcga atcctggagg aggaaataaa gggaaaggga agtcgtggag aggcaggga 1200
aatggttaag cagcccgccc ctctggagtc cccatggggg cggtagctga agttggcgag 1260
cgcagcggtg gatgcagagc tggctgcacc cagggctggg ccagtgtgtc ctgtaagact 1320
ttttgcattc cttctgtgc ttttttggga atgggggtat tttgttcat ttgttttgc 1380
cctgttttga ttttggccc acagagcagg ggatgtagt tgtaccacc atggcgagca 1440
cttccaaata aatagtactg gcc

```

&lt;210&gt; 574

&lt;211&gt; 2037

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 574

```

gtgatgtaat ccacctggg ggcaatagcc atattgcaa tggattgag ccttctgtg 60
ctggttcccc cactttccca actctttggg ctttgetgct gtcagtgtt tccagtctca 120
gcatggtttg gagctgaagc tttgggctgg gataggccag attataagg agggacttcc 180
aaacctgat ttctcagaca acgggcccgt tcaacctgc cttttccttt ggggcacctc 240
aacaagggt tacagtatcc tccctacct accagcttga cttgttctc tcatctccct 300
ggcatcaact tctaattgcc tggtaagtgt gagacacact gaactacccc cagtctatgt 360

```

```

ttgacagttg ggtgggtgtcc tgctccttag ggcaggattg gaggcgaccc agccagccac 420
ccaaggaaga tactaatgaa gcccctgctt tttgcctcac cttttcagga tcccaactca 480
ccagaggcag tttgtgttga gaacatgaca aagcctcatg acaaaatgaa tgggggtggg 540
gccaaagAAC tgcataaaga aaccagaagg ttgtgtggaa gtaagagaaa ggatagcagc 600
ctagggtctt aggaccggct ggaaccaaag ttgagtgtgg agaggatgag gggtagagta 660
gttcaggacc tgaacgaaag atctttgttag acaaatgtta ggctctgcaa atgggttctg 720
cggcaggact gaggtgggat tctgtgttga ggttctgtga gatctgacca cctggccccc 780
gtatctccct ccactgggtg cagggtgatgt gctggcatcc ctaggcagca gtgtatctgc 840
ttcctgtctg ggggtgtgag tgcatttatt ctcagaatga tccttattga taagacttga 900
gctggccttc ctatcatgga tgtggaatac attagtgacc ttacaaagt ttggggaaca 960
gatactttac cttcttaaac aggagttag gagcagtggg tccccatctt ttggactagc 1020
tcttaacgtt acttttcccc gctgtagtgt agcacagcca ctcctcttca ctgggggacc 1080
tcagtgtggt ggtcagctct cttggcctta catgtggcag ttgttttctt gtttcaggt 1140
gcggccgggt gtgtggcaac attacttcat gatgcagcca tgaacctgc ggaagtggc 1200
aagcagagga tgcagatgta caactcacca taccaccggg tgacagactg tgtacgggca 1260
gtgtggcaaa atgaaggggc cggggccttt taccgcagct acaccacca gctgaccatg 1320
aacgttctt tcaagccatt cacttcatga cctatgaatt cctgcaggag cactttaacc 1380
cccagagtgc gtacaacca agctccacg tctctgttg agcgtgcgca ggagctgtag 1440
ctgccgcagc cacatcccca ctggacgtt gcaaaacact gctcaacacc caggagtctt 1500
tggctttgaa ctacacatt acaggacata tcacaggcat ggctagtgcc ttcaggacgg 1560
tatatcaagt aggtgggggtg tccgcctatt tccgaggggt gcaggccaga gtaatttacc 1620
agatcccttc cacagccatc gcatggtctg tgtatgagtt cttcaaatac ctaatcacta 1680
aaaggcaaga agagtggagg gctggcaagt gaagttagcac tgaacgaagc cagggggttca 1740
gatgacactg ctgcatcctg gtcacattct ctgtctctg gaatgctccc acctcaagt 1800
gagttagaag gaaggttagg gggctctccc ccaggatttt ggtgttttga ctaacaccag 1860
ttcctgccaa cctctgttgc caccaccttt ccttccaggc cctaagcacg tgcagcaaa 1920
cacaccacag cacctttgat aacctctctc catcctgggc ctgatgacct gctctagact 1980
gttatagagg gataagcagt tcattcccct ggttgccctaa taaaagcct ttaaant 2037

```

&lt;210&gt; 575

&lt;211&gt; 1434

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 575

```

cttttaaggt aagcttcttt tggctttttt tcagatgttc accaagctta agtttaaaat 60
aatagggtatt ctaaaagagt atcctaattt tcttatctgt attcttttag aataccctaa 120
tgtttcagac agtgatatc tcttggtatt tctaaggcta aattggcaga gtatatcatc 180
taaaagccaaa cactgaagaa ggtgagaacc cactcccacc cagccagcat ttcctggaac 240
agacaagctg ctgcttcctt gctggctcac ttagtgcat cctgggatgg tctggcacc 300
aggcttttta ttctttttga tcattgttct tactgaggtg ccttctctaga acaagagcca 360
cttacaaaat agcttataat tattatgtac cacacaacta ctattgtttg atgtatgact 420
gctgagagct tgagtgcag cagagagtga ctgaagactt agtagaggaa taaattctga 480
gctgtcttaa ggtggggcta aggaacagat gagtaataag aggcctcttg atttttttaa 540
ccaatgcaac tgacctttc aatcagtttt ctttgaatta catctacaag ttttgttcca 600
ctcagctacc agtcaactag gcatgctcca cagtatcaca ggaagaaggt cagaaatctg 660
gaactgaagc taaaagaagt gaggatgtag aagccacatt cctcttcaag gtagtgtgtg 720
aaagaaccgc cccctcttga caggaggatg accgtcgcca ttcttgctg ggactgactc 780
accagctga gaggaggacc aatagaaaga aaattcacat ttgagtcac ctctcttccc 840
ttttttctgg ccttcattca taagatctgg ttgtttgggc tgtaggtggc ataattcatg 900
tttatttttg cctctgtcac atccagtttc tttagctttt aaggtaagct tcttttggct 960
ttttttcata tgttcaccaa gctaaaattt aaaataataa gaccaggttt ctctctctac 1020
aagtggatta taaacatttt caccaaatca tgacaatact ccagctttcc ggtccggctt 1080
cctaggagcc tggagttagc aaagggtgtc tctggatttc attctctgag aatatcccgg 1140
ggcctggggg ggggtgaatt tacatgaaat tgcaacatcc cccctttttt tttttctgg 1200
gttaggctgg ttgtctttcc tcccttaca atcatgttg ttttttgatt tgttcgcgca 1260
gttttatgtt tttttagata aacatccgct ttccatttgc gggaaaatca 1320
tttctgttta ataaattggc tataacttta atttctgtgg ccaacttgta aaatttggaa 1380
tgtttcattt gtagaagggt taaagatata caaataaatg ctttgggtgt tggc 1434

```

&lt;210&gt; 576

&lt;211&gt; 1850

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 576

```

cnttttctaag ggaggaatgg agatgggcaa acatctgggtg cctgcccaga tctctaccag 60
tgggtctgatg gaagcaattc ccagtaccga aactgggtaca cagatgaacc ttcctgcgga 120
agtgaagagt gtgtttgtgat gtatcaccaa ccaactgccca atcctggcct tgggggtccc 180
tacctttacc agtggaatga tgacaggtgt aacatgaagc acaattatat ttgcaagtat 240
gaaccagaga ttaatccaac agccccgtga gaaaagcctt atcttacaaa tcaaccagga 300
gacacccatc agaatgtggt tgttactgaa gcaggtataa ttcccaatct aatttatgtt 360
gttataccaa caatacccc tctcttactg atactgggtg cttttggaac ctgttgtttc 420
cagatgctgc ataaaagtaa aggaagaaca aaaactagtc caaaccagtc tacactgtgg 480
atttcaaaga gtaccagaaa agaaagtggc atggaagtat aataactcat tgacttggtt 540
ccagaatttt gtaattctgg atctgtataa ggaatggcat cagaacaata gcttggaatg 600
gcttgaaatc acaaggatc tgcaagatga actgtaagct ccccttgag gcaaataa 660
aagtaatttt tatatgtcta ttatttcatt taaagaatat gctgtgctaa taatggagt 720
agacatgctt attttgctaa aggatgcacc caaacttcaa acttcaagca aatgaaatgg 780
acaatgcaga taaagtgtt atcaacacgt cgggagtatg tgtgttagaa gcaattcctt 840
ttatttcttt cacctttcat aagttgttat ctagtcaatg taatgtatat tgtattgaaa 900
tttacagtgt gcaaaagtat ttacctttg cataagtgtt tgataaaaat gaactgttct 960
aatatttatt tttatggcat ctcattttct aatacatgct cttttgatta aagaaactta 1020
ttactgttgt caactgaatt cacacacaca caaatatagt accatagaaa aagtttggtt 1080
tctcgaaata attcatcttt cagcttctct gcttttggtc aatgtctagg aaatctcttc 1140
agaaataaga agctatttca ttaagtgtga tataaacctc ctcaaacatt ttacttagag 1200
gcaaggattg tctaatttca attgtgcaag acatgtgcct tataattatt tttagcttaa 1260
aattaaacag attttgtaat aatgtaactt tgttaatagg tgcataaaca ctaatgcagt 1320
caatttgaac aaaagaagt acatacacaa tataaatcat atgtcttcac acgttgctta 1380
tataatgaga agcagctctc tgaggggttct gaaatcaatg tggctcctct cttgcccact 1440
aaacaaagat ggtgttccgg ggtttgggat tgacactgga ggcagatagt tgcaaagtta 1500
gtctaagggt tccctagctg tatttagcct ctgactatat tagtatacaa agaggctcatg 1560
tgggtgagac caggtgaata gtcactatca gtgtggagac aagcacagca cacagacatt 1620
ttaggaaagga aagggaagta gaaatcgtgt gaaaatgggt tggaaacccat cagtgatcgc 1680
atattcattg atgaggggtt gcttgagata gaaaatgggt gctcctttct gtcttatctc 1740
ctagtttctt caatgcttac gccttgttct tctcaagaga aagttgtaac tctctggtct 1800
tcatatgtcc ctgtgctcct ttaacccaaa taaagagttc ttgtttctgg 1850

```

&lt;210&gt; 577

&lt;211&gt; 1225

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 577

```

ctccagccca ccgcccacca gccaggcatc tgaaactgca tggaaattctc ctgccttgaa 60
agaccagtg gatggatccc ggtgctgagc tgaggttact cagaacocca gagccctctg 120
agcttctggg tgccttggtt cttacacggg gtatccgac tgacacgcag ccagcggagg 180
gccttcttaa agagtctctc tttgtaagt acttccaggg aaggaccaga catcctctgg 240
ttccattgat gcaaataata aatgtccgac tacaactact cgcttcttac ccttctggca 300
ggtttggtgt ttagtttcag acgcaatggc cagcagcttc ttattcccat cttactggca 360
aagggtgtcac tccctggagg cacttgaaag ggggttgggt tggaaattgtt taatctcttc 420
aagtcgagcc agtgggtata aagccagaca ttattacca ctcatlaact cccttggttag 480
ggctttgcct ttgggcagag ctcccctgcc agccaatcca aagtatgaga gtgggtgac 540
ttcatgtaca cagttgggtc acctctagac cctggacaat ccccttctcc catctgctga 600
gaagggagtt cagttggctg tccctgcctg caggtaggag ggtcaaattc tgctttgccc 660
cttatctcgt cttctataaa gcctttccca gatgaccca gctcacaatg accctccct 720
tctctgagcc gtggggctca ttgtctcgag ctgcatcact tgcctctgct atgggaccaa 780
acagcaccct ggtcctcatg ctgagctctg cagagtaccg ggggctaggg tcagacctta 840
tgggtcctga ggggataagg tgagagtggg gcacaggtgg ccagacagc ccactccctc 900
cagccagatc tcaactatta gacaccaac ctagggttcaa atcccctctc aggcacttac 960
tgggtgagtg accctgagaa aattgcttaa ccttctgga cctcggtttc ctcatctgca 1020
aaatggacac tataataata gccacctcag gatatgattc agtgaattaa tgaagcaatg 1080
tgtttagccc aggacctaac tagagttagc cttcagtata tgtaagctat tgttaccat 1140
taagttatth ttatagttt taaatattgg gtctgtggat aaanttcgnt tggaggagaa 1200
aagtttgcta ctaaaacaaa caaac 1225

```

&lt;210&gt; 578

&lt;211&gt; 1589

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 578

```

agtaggtggt ttgagtttgg aggccttgggt atatgaaaaa tttgtatctt taaacagtag 60
catccagctc agtgacagaga aatgagaagc gttaaagaacc agtgcctgac tgtaggaggt 120
aacaggcccc gggcctccac tccagtgtag tggggtgtgc atgcttactg gggagaaggg 180
caggtgggag caatggcact gcttaaattt cttttgtgct gttgcacccc tgtatgtgca 240
ctttgcactt gcagctctcac tagctctctc gctttccttt ccaggcatat atatttagat 300
tctggtatcg tactcattgg tttatgctac agctgtaacc ccattgcctga gattgcatg 360
agtactgatg actgcaaat ttttattttt gtatcctcaa ttccttgaat agttgaattg 420
gggctcaata catgtttgct aaatgatgat tgcatttaac tgtgagcagc ttttccagat 480
attaatcaaa atgcctgcaa agactacaca gttgcaagg acatcagctt atatcccaac 540
attattgggt cctgatccat agttgtgaga ccttgggtga ttccctgata gtacagcaac 600
tccttgggaa tgggaagtca acttgttggc tttagaacia cataagcagt ttcatagaac 660
attcactgaa tgtctcctct gtgctgagcc catgtcaggg actgggtctt taatcatggt 720
cttgtatgca gcacccctgc actctacctg cacatgactt ctgaacagca tgctctgccc 780
agacagcctc agtgagggcc aggacttgaa cctgtgggaa gcatgtaaa acatatttcc 840
gtggtggcag aaggctgaga gttcagcata ctgtctgtct tcacttttga gttgttcttt 900
catctgccta agactcatgg cagagcactc atttcacaaa ctttccactga gtgcccagca 960
tgtgccaggg actgtgccat gtgctgaaag tacaaagact ttaatatgta gtccttgacc 1020
tcaaagagct caagagtaat tgacagaaat tccatagatca tgatctgtga tgatgagaat 1080
cattccttag aagggttgc atataaacat atttatatac ttattttgta ggaaaatac 1140
cttggtaggc ttaaaaaaat aaggattgat catccatgtc aagcctgaca taaattttta 1200
taaatcggtg tgagcaaaaag gaaaaaaaat gtacaataat aataaaaata aaccgtagtc 1260
atttatactt catgctgtag ttctaaaata aaaattctcc tttggggctg gtgtggtggc 1320
tcacacctgt aatcccagca ctttgggagt ctgagggagg gggattgctt gggcccagga 1380
gttcgagacc atcctaggca acatagtaag accctgtctc tacaaaaaaa tgaaaaaaat 1440
tagctgaaca tgatgtcgcg cacctgtggg cctagctatt caggtggctg aggtggaagg 1500
actgcttgag cccggaaggc caaggctgca gtgagccatg atcaagccat gatcactcca 1560
gcctgggtga cagagtgagc ccctgcccc 1589

```

&lt;210&gt; 579

&lt;211&gt; 1333

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 579

```

tttcgttgca tgtgatgggt ctgtggacat atgatcccca caaactgtgg gagtgattgg 60
ccaggccttg ttttgtttgt ttgtttgttt gtgtttttgt tcttttgaag aatagagtgg 120
tatttagaaa ataaattgca ttgcaaagct cttatcggtc catatgagag agcaggttcc 180
tgcccttgaa aatgccggta agctatagca tatgtttttt aagacttaag catttcatgc 240
tttaaaatac cttcacaagt gaacattaca cacagaagtt catttggttt tcccttgttt 300
tatggtgcat atagcaataa agacccccct ccacctgca acccccatcc cccaccgggc 360
ctttgtccct gccttggctt ttctccccct ctcatctctc tctccccttt cctcactgaa 420
ggctgtgagt tgccttcaat gtgacaacac tatgatgtca tttggaagga tttgccagga 480
cagactgatt ctgagtcctg ggtgcctgat gtgtatgcgg cagtgttgtc aggcgatctt 540
gtttgaagct ctatgttgcc ataattacca tcaagtacac actgttggca aaaggctaac 600
acctgaactt agaaaatgct gatttgagaa caaaaggaaa ggtctttttt cactgcttaa 660
agtgggggtca ctttgatacc tttgcggtca tgtctgtgtc tgatgagtgt agaactcttg 720
gatgtgcact gtcagtcatt tgtccaccag gcctcgaata tcatatggga aatgtcatag 780
ttaaaaacgt acagccaggg ccgtgtgctg ttaatagtgt gaaattgtca tgttaaaaaa 840
aaaaacagga accaaatgtg acctgtgtga tatgttggta gctgaaaatc ttcaaggcta 900
ctgatgggtg gcccttaaat cttgtctttg attgctgtgt gcagggaag gtgtccccgt 960
ttgttcatgc tgttttgggg ggtggggggg tatttgcaag aatactcatt ttgacataat 1020
aggtcctctt gtcagagacc ctctcccccg gacattaatg gctgagcagg ggccacatgg 1080
attgattgta tccactcccc attgacgatg gcattgagcg tggctggctt atttccatcc 1140
tacgtgtttt tgggcttgct ctctcggttt aagaggtgcc gggggtacat ttttgcactg 1200
aaatctaaag atgttttaaa aaacactttt caaaaaata gtcttttgtc attacatttt 1260
ttactcatgt gttgtacat ttttgtatgt tagtttgtga atgatttttt cagtaaaaaa 1320
tacatattca agt 1333

```

&lt;210&gt; 580

&lt;211&gt; 1061

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 580

```

acttcgctat attgtacggt gcaggcttta ttgtcatttt ctogactttg gcagaaattg 60
ataaagaagg tgtgattgaa ccagacactg atgctcctca agaaatggga gatgaaaatg 120
cggaggtaag ttccgtgact tgatttcctg cttgttctaa gaaatgtgaa aggtcctgct 180
gttgcaatga ttttatgaca cgattcctcc aggaaaagcg catagtaa atttctctga 240
cttcaggcgt ttttagcaag cattgtattt tactacttaa aatacta atgaaaata 300
ctgttacttt ctgtttttatc tgttttttaa gtttgcactt ggtgtgactg cttgcaactg 360
aacgcagaat tcacttaaaa tacataccta ttagtgagg tgcctctgat ggaatatcta 420
atgccaaatt gtattacaga atggtttgtc ataacaggcc ctcaaggagg tgaatttgg 480
ttcttgggag gagggcttaa aaaaaattct atatattaca atggttagtg gtctcccaa 540
gactcataga atattaatat gtagtgtatc tgtggtatta aaattgggga tatggaaatg 600
aggaaaagat gtctaaaaag gctccttagt gctgataaaa aatttgagaa acactcta at 660
atagtaatag cagtttttaa agattgggtt ttatcctcaa aacttgatat tatcagattt 720
catctttgcc aagtattgtg ggaaatggta tctttttgtg gcttttaatt tgcattttcc 780
tgccagaca ggggtgctac gcctgtaatc ccagcacttt gggaggccga ggtgggtgga 840
tcataaagg tcaggagttt gagaccagcc tggccaacat ggtgaaaccc cgtctctact 900
aataatacaa aaataagcca ggcatgatgg tgcacgcctg tagtcccagc tgcctgggag 960
gctgaggcgg gagaatcact tgaaccagg aggcagaggt tgcagtgagg tgagatcgcc 1020
ccccngcact ccagcctgag cgacagagca aaactctatt t 1061

```

&lt;210&gt; 581

&lt;211&gt; 1634

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 581

```

cccagtttac ctgaactgtg tgttgaagag tgatgtcctg cagcctggag ctgaagtca 60
tactgatgac ccctatgtcc gacagctagt tacctccatg gatgtgactg agaccaatgt 120
cttctcttac cctcggtctc tacctttgac aaagtctccc gttgagagta ctaccgaacc 180
accagcagtt cgagcctctg aagagcgtct aagcaatggg gatataat tactggagaa 240
tggtgctaac ctcttctctc ggggtgggagc aagcgtccaa cagggtgttg tccagagcct 300
tttcagcgtc tctccttca gtcagatcac cagtgggttg agtgttctgc cagtcttgg 360
taatccactg tccaagaagg ttcgaggcct cattgatagc ttacgggcac agagatccc 420
gtacatgaag cttaccgtgg tgaacagga agacaagatg gagatgctgt tcaagcactt 480
cctggtggaa gacaagagtc tgagtggggg agcatcttat gtggactttc tctgtcatat 540
gcacaaggag attcggcagc tactgagcta aagcaagtgg gtaaatggca tagggcccag 600
gctagcttcc agaaagcacc ccaggatgtc agagaaattg ggacagtaac atatcttatg 660
taagctgacc tcagtctctc tggggggagg gggagatata aggagacacc tctttctgg 720
gctcaagtat cctgccactc tgcctgttcc tgcctgatga aggtgcccct gttccctcat 780
tctaccctct ttttctgct aatcctgtca taatgaatgt agcttctcag ttcactgtat 840
atgattcggg attgggggtt tggaggcacc cagaccctgg caatattatg tgcctcttg 900
gaccagtctc ccaagaggag aggggcaggc aggaaagagt ggggaccta aggttactac 960
agggggctca gtgtcatcca caacttccta tattagggat aaaacatata ggtgcacaag 1020
agctggggta tagcccatag gtggtggaga gaaaagtggg cagtccctct tgggcctgga 1080
ggtagcagtt caagtttctc tgccttctact gctcgtctgc tctctcctgc aatgattgat 1140
gatcactccg tggatagaga ggcacactgt cagaggtgac cggagaactg agttgcaaaa 1200
tatattaaga tctggttagag gtaccagctt cctttccagc tggagaggcc ccaacactgg 1260
atggttctgt agggagccta gggagcctgg tcatcaactt gcaatacctc acagagccag 1320
ttcatatccc actctgagct cccacgagaa acactgcttc tccaggcccg gggttgttgg 1380
ggagagaggc agaggcagct ggagcgccgt tctctcctgc tgggacaccg cttgggcttt 1440
ggattgactg agtggtgac agttatcttc caaccacca tggcttgggg gcaggacaag 1500
ggctaggctt gatggtggcc aggtctgctt gctcccacc tgggatgccc ctgctctgga 1560
cctctcattt ctcttcattg gtttattttt caatgcatct ttaattttgta aagaaataaa 1620
ataaattaag atgt 1634

```

&lt;210&gt; 582

&lt;211&gt; 1222

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 582



```

gcgggcggtg ggggcccag cagcgcgaa ggcgggcacg cgggccatgg ctccctgggc 60
ggaggccgag cactcggcgc tgaacccgct gcgcgcggtg tggtcacgc tgaccgccgc 120
cttcctgctg accctactgc tgcagctcct gccgcccgcc ctgctcccgg gctgcgcgat 180
cttcaggagc ctgatccgct atgggaaaac caagtgtggg gagccgtcgc gccccgccgc 240
ctgccgagcc tttgatgtcc ccaagagata tttttccac ttttatatca tctcagtgtc 300
gtggaatggc ttcctgcttt ggtgccttac tcaatctctg ttcctgggag caccttttcc 360
aagctggctt catggtttgc tcagaattct cggggcgcca cagtccagg gaggggagct 420
ggcactgtct gcattcttag tgctagtatt tctgtggctg cacagcttac gaagactctt 480
cgagtgcctc tacgtcagtg tcttctccaa tgtcatgatt cacgtcgtgc agtactgttt 540
tggacttgct tattatgtcc ttgttggcct aactgtgctg agccaagtgc caatggatgg 600
caggaatgcc tacataacag ggaaaaatct attgatgcaa gcacggtggg tccatattct 660
tgggatgatg atgttcatct ggacatctgc ccatcagtat aagtccatg ttattctcag 720
caatctcagg aaaaataaag caggagtggg caattcactg taaccacaag gaccttttgg 780
gagaatgggt agaataagta tattccacta actactaggc gagagtgtat gatctacgta 840
tccatggccg tcccccttgg gttccccaaa ttaacatggg ggctagtggg gacaaatgtc 900
ttctttaate aggcctgtga tgcccttttc agccaccaat tatacaaagg caaattagtc 960
tcttaccgga agcataggaa ggctttcctc ccaattatgt ataaagttaa ccaaagtcac 1020
gaggaatgca aaccaggtga tggtttcaat gcctaaggac agtgaagtct ggagtccaaa 1080
gtacagtttc agcaaagctg tttgaaactc tccattccat ttctataccc cacaagtttt 1140
cactgaatga gcatggcagt gccactcaag aaaatgaatc tccaaagtat cttcaaagaa 1200
taaatactaa tggcagatct gc 1222

```

&lt;210&gt; 583

&lt;211&gt; 1578

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 583

```

caccctcctc tgggagaatc ccgtagatca cagctcctca ccatggactg gacctggagc 60
atccttttgt tggtagcagc agcaacagggt gccactccc aggtcacct ggtgcagtct 120
ggaggagagg tgaggaaatcc gggggcctca gtgcgggtgt cctgcaaggc ctctgattac 180
tccttcaacta gttatggaat cacatgggtg cggcaggccc ctgggcaagg cctcgagtgg 240
atggggtgga tcagcgcata caatggaaac acaaattatg cacanaagtt ccagggcaga 300
gtcaccttga ccacagactc cgccacatat acagccttta tggacctgac gaatctagaa 360
tttggcgaca cggccgtcta ttactgtgca cgcgaccgaa ttgatgggag tggcaggcgt 420
cttgacttct ggggccaggg aacctgggtc accgtcgcgt cacctccacc aaggggccat 480
cgttcttccc cctggcacc cctccaaaga gcacctctgg gggcacagcg gccctgggct 540
gcctgggtcaa ggactacttc cccgaaccgg tgacgggtgc gtggaactca ggcgccctga 600
ccagcggcgt gcacaccttc cgggtgtgct tacagtccctc aggactctac tccctcagca 660
gcgtgggtgac cgtgccctcc agcagcttgg gcaccagac ctacatctgc aacgtgaatc 720
acaagcccag caacaccaag gtggacaaga gagttgagcc caaatcttgt gacaaaactc 780
acacatgccc accgtgccc gcacctgaac tccctggggg accgtcagtc ttcctcttcc 840
ccccaaaacc caaggacacc ctcatgatct cccggaccct gaggtcacat gcgtgggtgg 900
ggacgtgagc caggaagacc ctgaggtcaa gttcaactgg tacgtggacg gcgtggaggt 960
gcataatgcc aagacaaagc cgcgggagga gcagtacaaa caagccgtac cgtgtggtca 1020
gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag tgcaaggtct 1080
ccaacaaagc cctcccagcc cccatcgaga aaaccatctc caaagccaaa gggcagcccc 1140
gagaaccaca ggtgtacacc ctgcccccat cccgggagga gatgaccaag aaccaggtca 1200
gcctgacctg cctggtcaaa ggcttctatc ccagcgacat cgcctgtggg tgggagagca 1260
atgggagacc ggagaacaac tacaagacca cccctcccg gctggactcc gacggctcct 1320
tcttccctta tagcaagctc accgtggaca agagcaggtg gcagcagggg aacgtcttct 1380
catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc ctctccctgt 1440
ccccgggtaa atgagtgcga cggccggcaa gccccgcctc cccgggtctc cgcggtcgca 1500
cgaggatgct tggcacgtac cccgtctaca tacttcccag gcaccagca tggaaataaa 1560
gcaccacca ctgccccg 1578

```

&lt;210&gt; 584

&lt;211&gt; 1951

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 584

```

ggattccaag gcttttccac ttgctgatca gcaactgaaca cagaggactc aacatggagt 60
tggggctgtg ctgggttttc cttgttgcta ttttagaagg tgtccagtgt gaggtgagg 120

```

```

tggcggagtc tgggggaggc ttccaacaac caggagggtc cctgagagtt tctgtgacag 180
cctctgcctt cagtttcagt acctatgcaa tggactgggt ccgccaggct ccggggaagg 240
ggctggagtg gatctcatac attagtagta gtgggtattc catatactac gcagactctg 300
tgaagggccg attcaccatc tccagagaca acgccagaa ctcactgcat ctgcagatga 360
acgacctgag agtgaagac acggctcttt attactgtgc gactggattg ggggtggagt 420
acgaacagtc cgactactgg ggccaggaa gcctggtcac cgtctcctcg gggagtgcac 480
ccgccccaac ccttttcccc ctgctctcct gtgagaattc ccgctcgat acgagcagcg 540
tggcggttgg ctgctcgca caggacttcc ggggcttccc atcagtcctg agagggggca 600
acaagaacaa ctctgacatc agcagcaccg ggggcttccc atcagtcctg agagggggca 660
agtagcgagc cactcacag gtgctgctgc cttccaagga cgtcatgcag ggcacagacg 720
aacacgtggg gtgcaaagtc cagcacccca acggcaacaa agaaaagaac gtgcctcttc 780
cagtgtattg tgagctgcct cccaaagtga gcgtcttctg cccaccccg cagggtctct 840
tcggcaaccc ccgcaagtcc aagctcatct gccaggccac ggggttcagt ccccgccaga 900
ttcagggtgc ctggctgccc gaggggaagg aggtgggggc tggcgtcacc acggaccagg 960
tgagggtgga ggccaaagag tctgggcccc cgacctacaa ggtgaccagc acactgacca 1020
tcaaagagag cgactggctc agccagagca tgctcacctg ccgctgggat cacagggggc 1080
tgaccttcca gcagaatcg tctccatgt gtgtccccga tcaagacaca gccatccggg 1140
tcttcgcat cccccatcc tttgccagca tcttctcac caagtccacc aagttgacct 1200
gcctggtcac agacctgacc acctatgaca gcgtgacct ctcctggacc cgccagaatg 1260
gcgaagctgt gaaaaccac accaactct ccgagagcca ccccaatgcc actttcagcg 1320
ccgtgggtga ggccagcatc tgcgaggatg actggaattc cggggagagg ttcacgtgca 1380
ccgtgaccga cacagacctg cctcgcacc tgaagcagac catctcccg cccaagggg 1440
tggccctgca caggcccgat gtctacttgc tgccaccagc ccgggagcag ctgaacctgc 1500
gggagtcggc caccatcacg tgctggtga cgggcttctc tcccgccgac gtcttcgtgc 1560
agtggatgca gagggggcag ccttgttccc cggagaagta tgtgaccagc gcccgaatgc 1620
ctgagcccca ggccccaggc cgggtacttcg cccacagcat cctgaccgtg tccgaagagg 1680
aatggaacac gggggagacc tacacctgcg tggtgcccca tgaggccctg cccaacaggg 1740
tcaccgagag gaccgtggac aagtcaccgg gtaaacccac cctgtacaac gtgtccctg 1800
tcatgtccga cacggctggc acctgctact gacctgtcg gcctgcccac aggtcgggg 1860
cggctggccg ctctgtgtgt gcatgcaaac taaccgtgtc aacgggggtg gatgttgcat 1920
cttataaaat tggaaataaa aagatccatc c 1951

```

&lt;210&gt; 585

&lt;211&gt; 1452

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 585

```

ctcctggcac cgctatgagc atgggcgctt ctggcctttc ctgcgagagt cagatgcaga 60
cgagtgaggc cggggacagg gcctcggctt cactgtcaac ctgccctgga accaggttg 120
gatgggaaac gctgactacg tggctgcctt cctgcacctg ctgtccccc tggcctttga 180
gtttgacctt gagctgggtg tggctcctggc aggatgtgac tcagccatcg gggacctga 240
ggggcaaatg caggccacgc cagagtgtt cgcaccctc acacagctgc tgcaggcg 300
ctaccacctg gactcactgg cggagtcatg gtgcatgaca gtacagacgc tgcagggtga 360
cccgccccca cccctgtcag ggccaatggc gccatgtcag agtgccctag agtccatcca 420
gagtgcctgt gctgcccagg ccccgccactg gaagagcctc cagcagcaag atgtgaccgc 480
tgtgccgatg agccccagca gccactgccc agaggggagg cctccacctc tgcctgctgg 540
gggtccagtg tgtaaggcag ctgcatctgc accgagctcc ctcctggacc agcctgacct 600
ctgccccgca cctctgttcc gcaccgtgtg tgccctgaca acgcccagata tcacattgg 660
tctgccccct gacgtcatcc aacaggaagc gtcagccctg agggaggaga cagaagcctg 720
ggccaggcca cagagtcctc tggcccgga ggaggccctc actgactctg ggaagctcct 780
gtacctctta gatgggatgc tggatgggca ggtgaacagt ggtatagcag ccaactccagc 840
ctctgctgca gcagccaccc tggatgtggc tgttcggaga ggctgtccc acggagccca 900
gaggctgtg tgcgtggccc tgggacagct ggaccggcct ccagacctcg cccatgacgg 960
gagtctgtgg ctgaacatca ggggcaagga ggcggctgct ctatccatgt tccatgtctc 1020
cacgccactg ccagtgtatg ccggtgggtt cctgagctgc atcttgggtc tgggtgtgct 1080
cctggcctat gcttccagcc tgacctgtgt cgtgtggcgc tggggcctgg ccatggcctg 1140
caggggcccc acgctgcact cctggctgca atgctcggg ggtggcagg gggccgagtc 1200
ctggccctcc tggaggagaa ctccacaccc cagctagcag ggtacctggc ccgggtgctg 1260
aatggagagg cactccttag cctaggccct tctctgtgtg cctcccaga ggacgtccag 1320
gcctgtatgt acctgagagg gcagctggag cctcagtggg agatgttgca gtgcctnnn 1380
nnntgtgtgg cttgaaatcg gccaaagtgg gagcatttac accgcagaaa tgacaccgca 1440
cgccagcgcc cc 1452

```

&lt;210&gt; 586

<211> 1396  
 <212> DNA  
 <213> Homo sapiens

<400> 586

```

gccgcttttt tttttttttt tttttttttt tttttccttc tttttttttt ttaagcacta 60
gtctgtgctt tgcgaacaga atcaagacat taacaaagat cagcttctct gaagaaaagc 120
atttctatag aacaaagaca gctacatgtt tcgctgccat tacacagctc caaagcagga 180
aaagaaaata ttacaaaat acaaggtttt ttttttccat tttttgtttt tgtttttttt 240
ttcaatgcta aaagggttat tcagaatttt caaccttata aatagaagaa gcactttatg 300
catagggata tgggtgcatta ttgtattttt ttttaaagaa acaatgacaa accctttaac 360
ttgcaaacag aaaaaaaaaa cactaatgtt gaaaattgtg aaaaaacccc aaccattaag 420
cagttgtcta ctatttttat acgattacaa aatggccaaa aaaaaagagt cttctcccc 480
ctcccccttt ttggtgatgt gatcatacag gagacaggca caaggttaac agagaagggt 540
gaagggggaa caatgggaac cacagctagg ccagacaatg ttccacaggc aaggggagcg 600
tgaaagacca agagtggaa taacaccgac agggatctgg atgtgaagga aacatggcaa 660
agtgaatcag agggaaaaaa aaaaaaaaaa tcacacaggg agatggctgc tctctccca 720
caacccccag tttgcagggg agtgggaata gaggttaagt agtcctaacc ctaccttcaa 780
agatcaggat aggttgtaaa aatattccaa gtggaaggac ggggttgtggg tgtgtacatg 840
gcattgggaga gcagacaggg aagggtacca aggggcatga ggaggggaac ctgagcagcc 900
acagccaggt tactgcagtg aaagagtcaa acagagaag accaaatgca gatgaaacaa 960
aaaatcagtc tcttaagtct tgggtgagaa aggagagggt ttctgccagc tgagcactcg 1020
gggagagctt ctggcagtta tggcagagag gctctgggtg ggatgttcca gcacgaaaaa 1080
ccaaagggac ccagccagga gggccacagc agagccaaag cacagatggg gggggggggg 1140
gtaagagtcc agagcaccct gccccattcc accctagctc aagaaggcca tgctaaactg 1200
tagcccgcca ggctgttctg ccctgcccac ggggtgtggg ggggggggtg tcatctaaga 1260
tcagtaagtc cagtattca acagtgcaga ggatgtgcca ggaccaggcc agcagggtct 1320
catcctgaac ttctgtttgc cgaacgggag gaagtgtcga ggtgtgtgac aagaaaacat 1380
ggaaacaaaa acaaaa

```

<210> 587  
 <211> 2047  
 <212> DNA  
 <213> Homo sapiens

<400> 587

```

cgcttggttg cgtgaccgag ggggtccgct cgctccctc cacccttcgc ccttcgcccc 60
tcgctcggtt ccggcctccg cggcccagca acggcgctca tgggtgccgtc ggcgctcccc 120
gcgcggcccc gctgagcctc ggtgcggcgg cgagcgcggt cgagatcgcc atgcctaccc 180
gagtatgctg ctgctgttcc gctttgcgtc ctgctacaa acgcctgggt gacaacatat 240
tcctgaaga tccaaaagat ggcttgtga aaactgatat ggagaaattg acattttatg 300
caagtatctg ctccagagaa actggatcga attggttctt acctggcaga aaggttgagc 360
agggatgttg tcagacatcg ttctgggtat gttttgattg ctatggaggc actggaccaa 420
cttctcatgg cttgccattc tcaaagcatt aagccatttg tagaaagctt tcttcatatg 480
gtggcaaaagc tgctggaatc gggggaacca aagcttcaag ttcttggaa aaattctttt 540
gtcaaatttg caaatattga agaagacaca ccacctatc acagacgtta tgactttttt 600
gtgtctcgat tcagtgccat gtgccattcc tgtcatagt atccagaaat acgaacagag 660
atacgaattg ctggaattag aggtattcaa ggtgtggttc gcaaaacagt caacgatgaa 720
cttcgggcca ccatttgga acctcagcat atggataaga ttgttccatc cctcctgttt 780
aacatgcaaa agatagaaga agttgacagt cgcataggcc ctcttcttc tcttctgca 840
actgacaaaag aagagaatcc tgctgtgctg gctgaaaact gtttcagaga actgctgggt 900
cgagcaactt ttgggaatat gaataatgct gttagaccag tttttgcgca tttagatcat 960
cacaaactgt gggatcccaa tgaatttgca gttcactgct ttaaaattat aatgtattcc 1020
attcaggctc agtattctca ccatgtgatc caggagattc taggacacct tgatgctcgt 1080
aaaaaagatg ctccccgggt tcgagcaggt attattcagg ttctgttaga ggctgttgcc 1140
attgctgcta aaggttccat aggtccgaca gtgctggaag tcttcaatac ctttttgaaa 1200
catctgcgtc tcagcgttga attcgaagca aatgatttac aggggggagc ttaggcagc 1260
ctcgacttaa atacaagttc caaagacaat gatgagaaga ttgtgcagaa tgctatcatc 1320
caaacaatag gatttttttg aagtaacctc ccagattatc agaggtcaga aatcatgatg 1380
ttcattatgg ggaaagtacc tgtcttgga catctacca tactttggat atcagtcaac 1440
taggggattt gggaaccagg agaattccga taatgttgct gagatctttg cttatggtga 1500
cctctggata taaagcgaag acgattgtta ctgcactgcc agggctcttc ctggatcctt 1560
tgttatcacc atctctcatg gaggactacg aactgagaca gttggtcttg gaagtaatgc 1620
ataatctcat ggatcgctcat gacaataggg caaagcttcg agggatcaga ataataccgg 1680

```

```

atgtagctga cctaaagata aaaagagaaa aaatttgcag acaagacaca agtttcatga 1740
aaaagaatgg gcaacagctg tatcggcaca tatatttggg ttgtaaagag gaagacaacg 1800
ttcagaaaaa ctatgaacta ctttatactt ctcttgcctt tataactatt gaactggcta 1860
atgaagaagt agttattgat ctcatcgcac tggccattgc tttacagaac agtgcaatta 1920
tcaatgagga taatttgcca atgttccatc gttgtggaat catggcactg gttgcagcat 1980
acctcaactt tgtaagtcag atgatatgctg tccctgcatt ttgccagcat gttagcaagc 2040
ttagaaa

```

&lt;210&gt; 588

&lt;211&gt; 1377

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 588

```

ctctccccag gagacccaga cctagaacta cccagagcaa gaccacagct ggtgaacagt 60
ccaggagcag acaagatgga gacaaattcc tctctcccca cgaacacctc tggagggaca 120
cctgctgtat ctgctggcta tctcttctct gatatcatca cttatctggt atttgcagtc 180
acctttgtcc tcgggggtcct gggcaacggg cttgtgatct ggggtggctgg attccggatg 240
acacacacag tcaccaccat cagttacctg aacctggccg tggctgacct ctgtttcacc 300
tccactttgc cattcttcat ggtcaggaag gccatgggag gacattggcc ttccggctgg 360
ttcctgtgca aattcgtctt taccatagtg gacatcaact tgttcggaa tgcttctctg 420
atcgccctca ttgctctgga ccgctgtgtt tgcgtcctgc atccagtctg gaccagaac 480
caccgcaccg tgagcctggc caagaagggt atcattgggc cctgggtgat ggctctgctc 540
ctcacattgc cagttatcat tcgtgtgact acagtacctg gtaaaacggg gacagttagc 600
tgcactttta acttttcgcc ctggaccaac gacctaaaag agaggataaa ggtggccgtt 660
gccatgttga cggtgagagg catcatccgg ttcattcatt gcttcagcgc acctatgtcc 720
atcgttgctg tcagttatgg gcttattgcc accaagatcc acaagcaagg cttgattaag 780
tccagtcgtc ccttacgggt cctctccttt gtgcgagcag cctttttctc ctgctggctc 840
ccatatcagg tgggtggcct tatagccaca gtcagaatcc gtgagttatt gcaaggcatg 900
tacaagaaaa ttggtattgc agtggatgtg acaagtgcct tggccttctt caacagctgc 960
ctcaacccca tgccttatgt cttcatgggc caggacttcc gggagaggct gatccacgcc 1020
cttcccgcca gtctggagag ggccctgacc gaggactcaa cccaaaccag tgacacagct 1080
accaattcta ctttaccttc tgcagagggt gcgttacagg caaagttagg agggagctgg 1140
gggacacttt cgagctccca gctccagctt cgtctcacct tgagttaggc tgagccacag 1200
gcatttctct cttatttttag gattaccac tcatcagaaa aaaaaaaaaa gcctttgtgt 1260
cccctgattt ggggagaata aacagatatg agtttaaaaa aaaaaaaaaa aaaaaaaaaa 1320
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaag 1377

```

&lt;210&gt; 589

&lt;211&gt; 1369

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 589

```

gcagagacat ggtgcattt attgttccca gcccggcgag aaggtgttcc cagaaagggt 60
ccttgggtca cctgcccacc cagccttggc tctgggctgc catgtcccca cgggggcagg 120
agagaggcac aagtcacagt caggcaaggg agcctcagcg tcttgggcgg tggctgttgg 180
ggtccctcca gtcttcacct gggacctcg gccaggctgg gacagcatcc aggaggcgag 240
gctgcatggt ccagcgggtg gtgcagtggt caacaggctg gcgggctgtg caggttccaa 300
aaggagctct cgggtttggc actgggttag accagccccg gggccagcag ggggaatgagc 360
ggtggaccag ggggttgctg ggcaactgggt gggcccatct cctgtccttc cctcatggct 420
gctggaaggg ccgcctccct ggctcagcat catctcagat tccgggactc aaagaccgtc 480
tcctcgtcgc tgcnagcga ggccatctcc gtggggtcct cagtgttggc gaggaggccg 540
tatcgctccc gctgaggctt cttcaaccta aacgcccgga tcaggaagta gagcgcggct 600
aggccgcaga agcccaggat cactagaaag gagcgcgtca gcgcgagcc cgacgcccgc 660
gcggacgcgt gtgcgtgctg ttgtgtggcg cgcccgctg gctcccgctc gtcacggccg 720
gcggcgcgca caacgtgacc tgcgcggggc gcagcggcga ggctcttcg gcaccgcacg 780
gcagcgcgcg cagcagcaac gccagcagga gcagcagcag cggcggtgct agcacgcgcg 840
gccccatggc ccggcggaag cgggtggcggc gccccgccc tatgcgcgct gtcagtcaag 900
cgcgcggaag ttatgccagc caatggggcg cggaggcgga gcttgacgcc gggccccgcc 960
tccgcctggt gagccccgc gctaccaca gtgccccgc cgcccgccgc ggaacttgct 1020
tcgtcgaccc gctccaaggg gatcaggacg gaggcccgga gcccgccgct gggagtcgcc 1080
gcaaggcgca gccggcagag ccagaaactg ccagcccagc gtgggggggt gcggcttcgc 1140
aggaaatcgg gctggcagcg gggagacggg ggccgacccc cgacttcagg acgtcggggc 1200

```

```

gctcattccc acccacttcg gggcgacccc cgcactctc tgcctcgccc tcacggacac 1260
tgagaacgcg tcggccacgt ccagggctcc aggaaggtgg cgcctcgctc cccagcctgc 1320
tacagggaac gcgcgggact cggcccagga cggggcgtga cnagcgggc 1369

```

```

<210> 590
<211> 888
<212> DNA
<213> Homo sapiens

```

```

<400> 590
gatggaggcg ctgatttttg aaccttcctt gtatactgtc aaagccatcc tgattctgga 60
caatgatgga gatcgacttt ttgccaagta ctatgacgac acctacccca gtgtcaagga 120
gcaaaaaggcc tttgagaaga acattttcaa caagaccat cggactgaca gtgaaattgc 180
cctcttgga ggccctgacag tggatataca aagcagtata gatctctatt tctatgtgat 240
tggcagctcc tatgaaaatg agctgatgct tatggctgtt ctgaactgtc tcttcgactc 300
attgagccag atgctgagga aaaatgtaga aaagcgagca ctgctggaga acatggaggg 360
gctgttcttg gctgtggatg aaattgtaga atggaggggg gatcctagag agtgcacccc 420
agcaggtggt acaccgggtg gcattaaggg gtgaagatgt ccccttacg gaggagaccg 480
tgtctcaggt gctgcagtc gccaaagaac agatcaagtg gtcactcctt cggatgaagac 540
ctcactgttc ctggctcttc atcctcttca aaaaatttgc atgtctgctg tgaattttca 600
tctagtctcc caatcgatgc tctcagggtc atctcgggga tcacagggat ccttaaatct 660
ccattctgtt tgtggttgcc cctcaacct cctctacacc cttctattc tttttcattc 720
ttcttgagcgt tctgggagta aagctccag catatttaga taatagggca ggggaagcac 780
cctctttctt tctagactgg attatgctca catgctcctt tgcctgaca tttttgtaaa 840
ttctgtgccc tttgtgttag ctacacttca gattaaagta ggagaaag 888

```

```

<210> 591
<211> 1202
<212> DNA
<213> Homo sapiens

```

```

<400> 591
tacagttttg gttataaaat tcatttgttg cagcatgcaa cattaacccc aaggacaagg 60
aatatctacc aaatgataac tttctccata tgcacagggc aaatatgtca tgtgtaatat 120
taaccaatac atttttgacg gtattaaagg tttgatacac tcagcatgga caagccatac 180
caatagaaaa aaaccacttt ctatgcttta attcaaaagg taattagact atcttactta 240
gttatctgtg tgtcattagg acctgaatca tactgaaaat tagtggttag tttatagttt 300
ctgagaatgt atgatcatta cattgaaata caatctctct catgtatata tttttctatc 360
atcatgtgtg aagccagtga ctatgaaatt tttcatgac atttcttatt tcctttttaga 420
ttttatgttt acaataaaaa gaaacgtctt gtcaacacac cttacgtgga taactcctat 480
aaatgggctg gtgggtggatt tctgtctaca gtgggtgacc ttctgaaatt tgggaatgca 540
atgctttatg gttaccaagt tgggctgttt aagaactcaa atgaaaatct tttacctgga 600
tacctcaaac cagaacaat gggtatgatg tggaccccag tccctaacac agagatgtct 660
tgggataaag agggtaaaata tgcaatggcg tggggtgttg tggaaaagaa acaaacgtat 720
gggtcgtgta gaaagcaacg gcattatgct tcacatactg gaggggcagt ggggtgccagt 780
agtgtcctgc tggctcttcc tgaagaactg gatcacagaga ctattaatta acaaggttcc 840
cccaagagga atcattgttt ctatcatatg taacatgcaa tctgttggcc tcaatggcac 900
cgctttgaag attgcccttg aatttgataa ggacagatca gactgataac cttaacacca 960
tgggtgcaaa atgagttggt ctgagggttt tttgaaacat taaagttcca aaacatgaca 1020
tttttaagaa taaatttgaa atggagtata attgaatgca gagaattatg tacctctaata 1080
tgcttaattt tgtaattggtc ttttattgta gaattgggtc tttatactca ggggaagtaat 1140
tatattgttt ttactttttg aaaagaagtg ttaactcttg aaataaaata ttctgataaa 1200
ac 1202

```

```

<210> 592
<211> 1740
<212> DNA
<213> Homo sapiens

```

```

<400> 592
ctcctcggga gaatccccta gatcacagct cctcaccatg gactggacct ggagcatcct 60
tttcttggtg gcagtgccaa caggtgccca ctaccagggt cagttggtgc agtctggagc 120
tgaggtgaag aagcctgggg cctcagtgaa ggtctcctgt aaggcttcag gtgacatttt 180
cagtacttat gctttcagct ggggtgcgaca gggccctgga caggggcttg agtggatggg 240

```

```

atggatcagc gcttacaatg gggatacaaa gtatgtacag aagttccagg gcagagtcac 300
cttgacaaga gacacatcca cgagcacagt atacatggaa atctggggcc tgagatctga 360
cgacacggcc gtctactact gcgtgagaga gggattggac gcattgcat cgctctattg 420
gttatattac tttgactact ggggccaggg aaccctggtc accgtctcct cagcttccac 480
caagggccca tgggtcttcc ccctggcgcc ctgctccagg agcacctctg ggggcacagc 540
ggccctgggc tgctgtgca aggactactt ccccgaaacg gtgacgggtg cgtggaactc 600
aggcgccctg accagcgcg tgacacactt cccggctgtc ctacagtcct caggactcta 660
ctccctcagc agcgtggtga ccgtgccctc cagcagcttg ggcacccaga cctacacctg 720
caacgtgaat cacaagccca gcaacaccaa ggtggacaag agagttgagc tcaaaacccc 780
acttggtgac acaactcaca catgcccacg gtgcccagag cccaaatctt gtgacacacc 840
tccccctgtc ccacgggtgc cagagcccaa atcttgtgac acacctcccc catgcccacg 900
gtgcccagag cccaaatctt gtgacacacc tcccccatgc ccacgggtgc cagcacctga 960
actcctggga ggaccgtcag tcttctctt cccccaaaa cccaaggata cccttatgat 1020
ttccccgacc cctgaggtca cgtgcgtggg ggtggacgtg agccacgaag accccgaggt 1080
ccagttcaag tggtagctgg acggcgtgga ggtgcataat gccaaagaca agccgcggga 1140
ggagcagttc aacagcacgt tccgtgtggt cagcgtcctc accgtcctgc accaggactg 1200
gctgaacggc aaggagtaca agtgcaaggt ctccaacaaa gccctccag ccccatcga 1260
gaaaaccatc tccaaaacca aaggacagcc ccgagaacca caggtgtaca cctgcccc 1320
atccccggag gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta 1380
ccccagcgac atcgccgtgg agtgggagag cagcgggcag ccggagaaca actacaacac 1440
cacgcctccc atgctggact ccgacggctc ctctctctc tacagcaagc tcaccgtgga 1500
caagagcagg tggcagcagg ggaacatctt ctcatgctcc gtgatgcatg aggtctcga 1560
caaccgcttc acgcagaaga gcctctccct gctcgggtt aaatgagtgc gacggccggc 1620
aagccccgc tccccgggtc ctccgggtcg cgcgaggatg cttggcacgt acccgtgta 1680
catacttccc gggcacccag catggaaata aagcacccag cgctgcctg gggccctg 1740

```

&lt;210&gt; 593

&lt;211&gt; 1511

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 593

```

tttctttctg tttattcaaa ataaaaatc acatagaatt atgaaaatat aggtttacta 60
tttccaccac gtaggttgat gctgctgtt aaaggcttac aaactgttt tcaagtttt 120
aaagctcate tcgatccctc aatagagtat acctatattc actgggtgct agtttctgga 180
aggagctctc aggtggactg ctgtctacat ctctggcttg ctctcctggg gctgtatcag 240
ttgggtcagg tccatgatgg aattctctgt gcagttttcc agaagttaag tcaaatcga 300
attgcttgag tttccaggga atnatacat ctttgaagtc tccaaacaca tacatatgcc 360
taaagctgtc aatagcgatt acaggacaat ctgctggagt tttctgtatg tgcagaagag 420
gatgtctaaa tttgtcaca tccggcatgta aaaagtttat tgtaccttt tcaactatta 480
attgcccagc tacttcattc tggaaatatt cttaaacttt tgtatctct ttcattgtga 540
agagtatgag aaaaggcagt ccttctctc tcaattctc tccattttca aatgttatt 600
ctcgacaag aggaacacat ttatcttgaa tccaattgta agtcacatca aaatttgtca 660
tagctcccaa gtacaccata tccggagcag aatgcctgg tggttttag attatgtgt 720
cgccactata tctttccgg tttgaaacat ccccaaatgc agaaagaaag gcacagtcac 780
catgcaaat attcgctact cgttcaaaaa ctctatagtt gtccgagtc ttttgctcaa 840
aatatccaat gatatttctt ttgctcgat caagagtggg gatctctgct aagtcggaa 900
tttcttgaat ggggtcactt tttgttgcc tgatgtaatc tgccaatgct ttcactgatc 960
gctgaccct gtattctctc ttcattcat tccattacg aaacaattt agggttgggt 1020
atttgcttat cctgtatctc tgggctatgt cagagtgtct atcacaatca actctggcaa 1080
acactacttg attttcattt ggaaattct ccttaatgac atcggaagct tcccaaaaa 1140
ttggatgcaa catctgactg aaacgacacc agtcagcata aaaatttact aaagcaacat 1200
cagcattgtt taaaatttca tctatattct ctgtatcaag acttgttatt tcagtgtgta 1260
caggagtaaa aacccaagtt accaggagca gaaggagca tctgaggtcg ggtaaggata 1320
ggaagacggc aggatgcatg gtaacgctgg ggtccgtgac agggacaggc gctggcggct 1380
gggactgggc taggttgggt tgggttagga aagggtggg ctccgggagc cgacggcagc 1440
ggaggattct ccaggcagcg gcacctcgtc ctctcgacc gggctccagc ggcgaacacc 1500
cggcttagaa a

```

&lt;210&gt; 594

&lt;211&gt; 1157

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 594

```

gctgaagggc ggcctcaaaag tggctttttg ttagacaagg ttaaggtttc ctcatgagca 60
aggttgcaga tcggtccttc ctccagctcct tgattttgta ccttgaccaaa ggggcctgcc 120
accagagccc tcagtgccc tctcctcgat gcctcgctcc ttccctgcccc cactccccctg 180
gcttaggcag gtaggggaat tagggccatg ctggaagaag cttaaccatg tgttcaaaga 240
acggtttctt gcttgcttg tcttggaact ccccttggct gccccaggcc tccttggccc 300
atgggtgctg ggggaggtgg atgtcagatc tggtaggttg cagcagagaa aataaatgtg 360
ccttgagaga ccactcagag aggggtccaag ggtgatggag aaggaagcat ggcctgggag 420
cttggaaggg aggggtggg ggtggcgga tcttgactgc cccctgttgt cccacacgtg 480
gggggtggtc accccttca ctccagccc cctgccttca gccttccatg agcttcacct 540
gcttccaact tcactttgga ggggtgggg tccgttgga tcaacacggg gaccctctgc 600
ttcaccaaag cccgagccct cagcccctgg ggagaacaaa tggctgagct ttgatacttg 660
gggtcgtcga gaggctgcgg gctggcgga gtcccagggg agagacacca cagaaggaga 720
cccagacatc ccgaggaagt tccagcaga gcaaactgct ttccagcctg aagcctgctt 780
aaactgtgtg atgtgcaata actgagctta gagttaggaa ttgtgttcaa gtgcttgat 840
ttccgtctgt agatttaact gctgaaattg tatctctcag taattttaga tgtcttttaa 900
aaaaattgaaa acaaaagtgt tagactgtgt gcgtgtgctg tgatgggac tcaagagtcc 960
cgtgagtcac ccagccctgc ctttccccctg cgcccccatc ctctcacgtc ccgccccgcc 1020
tccacttggg gncctgcct cgtgtcgtct ttatctgctt attactcagc ctaaggaaac 1080
aagtacactc cacacatgca taaaggaaat caaatgttat ttttaagaaa atggaaaata 1140
aaaactttat aaacacc 1157

```

&lt;210&gt; 595

&lt;211&gt; 1590

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 595

```

ctcactgccc agccgggac tcagggttc attttctgtc ctccaccatc atgggggtcaa 60
ccgccatcct cgcctcctc ctggctgttc tccaggaggt ctgtgccgag gtgaagctgg 120
tgcatgctgg agcagaggtg aaaaagccc gggactctct gacgatctcc tgtaagggt 180
ctggatacag cttccgcagt tactggatcg cctgggtgct ccagatgccc gggaaaggcc 240
tggagtggat gggaaatcatt tatcctgggg actctgacac caaatacagt ccgtccgccc 300
acggccaggc caccatctca gtgcacaagt ccgtcgccac cgcctacctg cagtggcgga 360
gcctgaaggc ctcggacacc gccatgtatt actgtgcgac gaacccctt caccgcgga 420
gtttcgctt tgatacttgg ggccaaggga catcgggtcat tgtctcttca gcctccacca 480
agggcccatc ggtcttcccc ctggcaccct cctccaagag cactctggg ggcacagcgg 540
ccctgggctg cctgggtcaag gactacttcc ccgaaccggg gacgggtgtc tggaaactcag 600
gcgccttgac cagcggcggt cacaccttcc cggctgtcct acagtccctc ggactctact 660
ccctcagcag cgtgttgacc gtgccttcca gcagcttggg caccagacc tacatctgca 720
acgtgaatca caagccagc aacaccaagg tggacaagag agttgagccc aaatcttgg 780
acaaaactca cacatgcccc ccgtgccag cactgaact cctgggggga ccgtcagtct 840
tcctcttccc ccaaaaacc aaggacacc tcatgatctc ccggaccct gaggtcacat 900
gcgtgggtgt ggacgtgagc caggaagacc ctgaggtcaa gttcaactgg tacgtggacg 960
gcgtggaggt gcataatgcc aagacaaagc cgcgggagga gcagtacaac agcacgtacc 1020
gtgtgggtcag cgtcctcacc gtctcgcacc aggactggct gaattggcaag gagtacaagt 1080
gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc aaagccaaag 1140
ggcagccccg agaaccacag gtgtacaccc tgcccccatc ccgggaggag atgaccaaga 1200
accaggtcag cctgacctgc ctggtcaaa gcttctatcc cagcgacatc gccgtggagt 1260
gggagagcaa tgggcagccg gagaacaact acaagaccac gcctccctg ctggacttcc 1320
gacggctcct tcttctcta tagcaagctc accgtggaca agagcaggtg gcagcagggg 1380
aacgtcttct catgtccgt gatgcatgag gctctgcaca accactacac gcagaagagc 1440
ctctccctgt ccccggttaa atgagtgcga cggccggcaa gcccccgct cccgggctct 1500
cgcggtcgca cgaggatgt tggcagctac ccgtctaca tacttcccag gcacccagca 1560
tggaataaaa gcacccacca ctgcctggg 1590

```

&lt;210&gt; 596

&lt;211&gt; 1044

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 596

```

gttaaatctt tgttttatct ttagccagac tgttactttg ttggttaaag ctgttttctg 60
ttgacttaat aaaatatcta tgataactaa aatgtgatag ctgatacatt actgtggaaa 120

```

```

gctgtttgaa tctttctcta gagctttcta agactatcat ggaatgcttt ctgtctagac 180
gatttcttct aagcctgaga ttttcgggaa aatgattgca aatttactgt tttagtact 240
gccatatgtc aatttggtgt agaatttaaa tgtgcctgat tcatctctcc ctgctgaaaa 300
tgaagccact ggccctggct ttgttctctc acctcttgct ccaatcagag gtccattgtt 360
tccagtggat gcaagaggcc cattcttgag aagaggacct cctttccccc cacctcctcc 420
aggagccatg tttggagctt ctcgagatta tttccacca agggatttcc caggccacc 480
acctgtcca tttgcaatga gaaatgtcta tccaccgagg ggttttctc cttaccttcc 540
cccaagacct ggatttttcc cccaccccc acattctgaa ggtagaagtg agttccctc 600
aggtttgatt ccaccttcaa atgagcctgc tactgaacat ccagaaccac agcaagaaac 660
ctgacaatat ttttgcctc ttcaaaagta attttgactg atctcatttt cagttaagt 720
aactgtgtt acttaagtga ttacacttta gctcaaattg aagcttaatg gaattataat 780
tctcaggata gtattttgta aataaagatg atttaaatat gaatcttatg agtaaatat 840
ttcaatttta ttttagacgg tataactatt tcaatttgat taatccccca ttatataaac 900
aatagtggga gttttatata tgtaatcttt caggtgggga ggctttaaat tctgaagtct 960
gtgtctttat gccaagaact gtatttactg tggttgtgga caagtgtgaa agtaacttta 1020
tgcttaataa aattatagtt gatt 1044

```

&lt;210&gt; 597

&lt;211&gt; 2018

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 597

```

tgtctcccc actgtcagca cctcttctgt gtggtgagtg gaccgcttac ccactaggt 60
gaagatgtca gcccaggaga gctgcctcag cctcatcaag tacttctctc tegttttcaa 120
cctcttcttc ttctgcctcg gcagcctgat cttctgcttc ggcactctga tctcatcga 180
caagaccagc ttctgtctct ttgtgggctt ggccttcgtg cctctgcaga tctggtccaa 240
agtctggcc atctcaggaa tcttcacat gggcatcgcc ctctgggtt gtgtggggc 300
cctcaaggag ctccgtgccc tctgggccc gtattttggg atgtgctgc tctgtttgc 360
cacacagatc accctgggaa tctcatctc cactcagcgg gccagctgg agcgaagctt 420
gcgggacgtc gtagagaaaa ccatccaaaa gtacggcacc aaccccgagg agaccgccc 480
cgaggagagc tgggactatg tgcagttcca gctgcgctgc tgcggctggc actaccgca 540
ggactggttc caagtctca tcttgagagg taacgggtcg gagggcgacc gcgtgccctg 600
ctctgctac aacttgctcg cgaccaacga ctccacaatc ctatagataagg tgatcttgc 660
ccagctcagc aggcctggac acctggcgcg gtccagacac agtgcagaca tctgcgctgt 720
cctgcagag agccacatct acgcgagggg ctgcgcgcag ggctccaga agtggctgca 780
caacaacctt atttccatag tgggcatttg cctgggcgtc ggctactcg aggtgatctg 840
gccccgcccc caccgcgat cgccctaaa tccctagatg gccctgccct tcatttcgcg 900
tcttctgggt gctgggaag gacgagctca gggcgagcg cagccacccc cgccctccc 960
gctgctccac ccagcaccgg aggtggggg cgccccagct tcagggagcc ctgattgggt 1020
gtacgcaggg aaagcctct gctattggct gcatctccc tcccccttct ccgcagatga 1080
ctgtcatggt gctgagcgtc cagctacagc gcagggcact ccgcccgaaa tgcgagccc 1140
caogtgccgg gcgctgggat tgcagcccc ggcccagcct gatcgctgac ggcggggcgg 1200
gcacagcggc agtctgtggg gtggctgggg catggcgggt gcctgcccc actggggaga 1260
caaggcaccg cagggaagc tgcctatggc cctggggctc tggccgctgt gggttcaaga 1320
cgaggaccag cctgacactg gaagtgcggg cgcagaatta gaggaggcac aattagagc 1380
tgaggcagag ggggaagaca gatgagcctc caaaataaag gacctgggc ttgcttccga 1440
ccttactcct tctcagcctc tacccccact tgtagcagct attcccgct catcagccag 1500
ccctgcggca gttcccgctg agccccgcc ttttctacct atccccctt ccagccccct 1560
tcgcccacat tcacggcccc acccctgacc tttctcgccc ggggtgggcat ccccccgct 1620
tcgcccagc ccttctgact tctctgacct catctcctt ctctatagct cgggttcatg 1680
acgctctcga tatctctgtg cagaaacctg gaccacgtct acaaccggct cgctcgatac 1740
cgtttaggccc cgccctcccc aaagtccgc cccgcccccg tcacgtgcgc tgggcacttc 1800
cctgctgcct gtaaatattt gtttaatccc cagttcgctt ggagccctcc gccttcacat 1860
tcccctgggg acccagctgg ctgcgtgccc ctgctgctgt cacctctccc acgggacctg 1920
gggctttcgt ccacagcttc ctgtcccat ctgtcggcct accaccaccc acaagattat 1980
ttttcaccca aacctcaaat aaatccctg cgtttttg 2018

```

&lt;210&gt; 598

&lt;211&gt; 1543

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 598



```

gacttcaaat tgcaacatgg gtccattctg ggcttcccca aggcaagcc ctatgaagga 60
agcatcttgg agggccgactg tgacatactg atcccagctg ccagtgagaa gcagttgacc 120
aaatccaacg caccagagt caaagccaag atcattgctg aagggtgcaa tgggccaaca 180
actccagaag ctgacaagat cttcctggag agaacatta tggttattcc agatctctac 240
ttgaatgctg gaggagtgc agtatcttac tttgagtggc tgaagaatct aaatcatgtc 300
agctatggcc gtttgacctt caaatatgaa agggattcta actaccactt gctcatgtct 360
gttcaagaga gtttagaaag aaaatttggg aagcatgggt gaactattcc cattgtaccc 420
acggcagagt tccaagacag gatatcgggt gcatctgaga aagacatcgt gcaactctggc 480
ttggcataca caatggagcg ttctgccagg caaattatgc gcacagccat gaagtataac 540
ctgggattgg acctgagaac agctgcctat gttaatgcca ttgagaaagt cttcaaagtg 600
tacaatgaag ctgggtgtgac cttcacatag atggatcatg gctgacttcc tcaactatcct 660
cttcacatgt aacttctgca gacctatcac aagtttacat gtaaccacag aaatcccttt 720
ctctcctgac tcattaataa tggataccat tctcaacaag tcaatccaag tcagcccggt 780
aaggagaaag aaattaaggt tagcggatca tgtacaagct gagtgtgaaa gtagaaatca 840
cctacaccag agagccattt tgggtattttg cctttaataa aaaagcctcc tttatctggc 900
tgtgcagcct tgctctgtgg cttttcccaa cacaatcagt gctagtgtcg gggaggaaca 960
gtcaagagca gtcagttgct tgcttatttt ttctggatga gtctgggaca cactgttaact 1020
ttaacacatt taagaagtag gtgtgtggcc ttttcagaag gtggcatggc cctcaagtga 1080
gttcttagta ttttatatca gcaaaataat tcaattttgc aggttgcaaa caaatataaa 1140
acctgtttct gtttatgaat attattcttt tagaatagaa taagtacatg ctgctgtaat 1200
aaaattgcct ttaatcactt aacaagccta cccttgactc aaacagtga tgcttataga 1260
aataataaat gaaaaaaact agtattttta tatcataaaa caatgtcatt tatagcttat 1320
cattcatgta ttgtccagca gacattaaaa gccctgtgga taattaagtt atcttcatac 1380
ctgcaaaatg gtggaggcta ttttcattaa aactgtcaga atttgcttac tataattatg 1440
atacagtcga aagaatgcag tcacttttta tcatgttaac taattgttct cttttgaaga 1500
tctatggttg actaattaaa caataattca agtagagtgt ccc 1543

```

&lt;210&gt; 599

&lt;211&gt; 1262

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 599

```

ccataacctc ccctccctca cgctgggcaa tgtgtttgtc atcgtgggct ctattatcat 60
ggtagttgcc ttcttgggct gcatgggctc tatcaaggaa aacaagtgtc tgcttatgtc 120
gttcttcacg ctgctgtgta ttatcctcct ggctgagggt accctggcca tctgtctctt 180
tgtatatgaa cagaagctga atgagtatgt ggctaagggt ctgaccgaca gcatccaccg 240
ttaccactca gacaatagca ccaaggcagc gtgggactcc atccagtcat ttctgcagtg 300
ttgtggtata aatggcacga gtgattggac cagtggccca ccagcatctt gccctcaga 360
tcgaaaagtg gagggttgct atgcgaaagc aagactgttg tttcattcca atttcctgta 420
tatcggaatc atcaccatct gtgtatgtgt gattgagggt ttggggatgt cctttgcact 480
gaccctgaac tgccagattg acaaaaaccg ccagaccata gggctatgat ctgcagtagt 540
ctgtgtggtg agagacttgt ttcatctccg gaaatgcaaa accatttata gcatgaagcc 600
ctacatgata actgcaggat gatcctcctc ccaccccttc cctttttagg tccctgtctt 660
atacaaccag agaagtgggt gttggccagg cacatcccat ctccaggcagc aagacaatct 720
ttcactcact gacggcagca gccatgtctc tcaaagtggg gaaactaata tctgagcacc 780
ttttagacaa gagaggcaaa gacaaactgg atttaattgg ccaacatcaa aggggaaccc 840
aggatatgaa tttttgcacg ttcccatgtt cgaattagtc tccagcctct aaataatgcc 900
cagtcttctc cccaaagtca agcaagagac tagttgaagg gaggttctggg gccaggctca 960
ctggaccatt gtcacaaccc tctgtttctc ttgactaagg tgcctgggt acaggaataa 1020
cacagttctc tttctccaaa gggcaagatc tcatttcaat ttctttatta gagggcctta 1080
ttgatgtgtt ctaagtcttt ccagaaaaaa actatccagt gatttatatc ctgatttcaa 1140
ccagtcactt agctgataat cacagtaaga agacttctgg tattatctct ctatcagata 1200
agattttgtt aatgtactat tttactcttc aataataaaa acagtttatt atctcaatcg 1260
cc 1262

```

&lt;210&gt; 600

&lt;211&gt; 904

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 600

```

gtcatcacag ggccatgcct ccctccaggc cgcaggagat ctgagccctg cacccaatga 60
gactgcatcc cccttcgcct gcatcgtgtg ctccggaggtc tcagatccca gctgcagcgc 120

```

```

aggaaggcg aggcgcgcca ctgcatggct tggccctcag gggtagaggc aggagacagg 180
gacagagggg cagtcagcct tcacaggaca gacctcaggc catctgttct cagctcctca 240
gaaaggagga ggagggaatt ctacagctg ctttactgct taaaacactg ccaagctggg 300
tttatttttt ttccgcagga taaaacatga agtggcctcc cctggggggc cacacctgtg 360
aggcctttac gagcctgagc tcagagctcc cagcccgggtg ctgcctccag gtgcctgtgg 420
gggtggcgctc gggccacctc atcaaaaggc ctgcccccg gacccaggc aagcggggca 480
gggacagcgt gtcaaggtgg ccccgagagc ccaactcacc gagagaggca gcagcgtggc 540
cacgcgggtct ggggtgcggc ccagcaggaa ggcccggtc tccttgaaag ggacgtccct 600
actcatcttc tccagcagca gccccaggac ctgggcagct aggcgaggct ccaccgccag 660
cgccccccac agcatgcagg tgtggctgga gcagagcagg agagtcaact tgaggccgtg 720
gctggtcagg gcgcctgccc cccgccacct ggggtgccgtg gacctgggt ccacgacgct 780
cagacacagc caccaggctc agctgcagcc agctgggaaa tggcctcttg gcctcagatc 840
tgagctcacc ccttccccctg actccaggga tctgtaaaca gagctggtaa taaaggacac 900
agag

```

&lt;210&gt; 601

&lt;211&gt; 1048

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 601

```

ttcttgctag ccccaaaagg gcctccaggc aacatggggg gccagtcag agagccggca 60
ctctcagttg ccctctggtt gagttggggg gcagctctgg gggccgtggc ttgtgccatg 120
gctctgctga cccaacaaac agagctgcag agcctcagga gagaggtag ccggctgcag 180
gggacaggag gccctccca gaatggggaa gggatatccct ggagagctct ccgggagcag 240
agtccgatg ccctggaagc ctgggagagt ggggagagat ccgggaaaag gagagcagt 300
ctcaccctaaa aacagaagaa gcagcactct gtccctgcacc tggttcccat taacgccacc 360
tccaaggatg actccgatgt gacagagggt atgtggcaac cagctcttag gcgtgggaga 420
ggcctacagg cccaaggata tgggtgcga atccaagatg ctggagttaa tctgctgtat 480
agccagggtcc tgtttcaaga cgtgactttc accatgggtc aggtggtgtc tcgagaaggc 540
caaggaaggc aggagactct attccgatgt ataagaagta tggcctccca cccggaccgg 600
gcctacaaca gctgctatag cgcagggtgc ttccatttac accaagggga tattctgagt 660
gtcataattc cccgggcaag ggcgaaactt aacctctctc cacatggaac cttcctgggg 720
tttgtgaaac tgtgattgtg ttataaaaag tggtcccag cttggaagac caggggtgggt 780
acatactgga gacagccaag agctgagtat ataaaggaga gggaatgtgc aggaacagag 840
gcgtcttccct ggggtttggt ccccgcttcc cacttttccc ttttcattcc caccctctag 900
actttgattt tacggatata ttgcttctgt tccccatgga gctccgaatt cttgcgtgtg 960
ttagatgag gggcggggga cgggcgccag gcattgtcca gacctggtcg gggccactg 1020
gaagcatcca gaacagcacc accatcta

```

&lt;210&gt; 602

&lt;211&gt; 1127

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 602

```

gctttttttt tttttttttt tttttttttt ttgcagttaa caccttctgt aagatgcttt 60
atttcattga ccaacaacat ggggtctgaa aaccagcgg ggggggtctt tttatcacag 120
agccagtcctc aggcgagctg atgcatctct cctcaggag ctctcatcct 180
ccaacccacag ctgccccac agccccaccc cattcacaga aagagggtta ccacgtgcct 240
cagccccctt gccaggctg ccagctccca ggtccttttg gagaaggact gatctaggca 300
gggaggagag aaggccaacc cctccagggc tcaactgagga aggccaaagc ctttcagaag 360
cagttcctgc agtgacgtaa tccacagcct gggatctgca tggccctgag atgcctgcgg 420
caggctggcc aaggggctgg tgtgaagaaa gagggcaggg ccataagct gtggccaaca 480
ggggcagggg ccctgcctgg agtaaaagtgc tctggcctag gctgcgtggg tttcactgcc 540
ctgcagcccc agcctccctt ccctctgat ccaggcacag ggagcctagt cctcactgga 600
gttgctcaaac tctcccagt cagacacact catcacctca gaggcaaagt ccgggtcggc 660
ctggctgcgg tcagggtgct gcggggcggc tcaaggagca gggagcgggg cagggtgagc 720
acacaggccg ccaggcctga gatggagtgt tccagctggg gcccttcctc ccagcagtc 780
ttctccacat cgtaaatgtg cacgtagcct gtgcggctgc cgcggttggt tgagcgggca 840
cctaacacat agatcctgtt gtccagcaca gcaatgccag gctcaccgtg cccagcaggg 900
agtgggcaga cagatgacca ctgtccagac gtgcagctgt agcaggccac ctggtgcacg 960
tccctcctgt atccggcatc gttgttctgt ccccgatca catacagctt gttgaggagg 1020
gttgccatgc cgtgccaggc gcgcgcaca ggcccatcag ccagtgtgtg ccaagtgttg 1080

```

ctgcctggat cgtagcagtg tgtctctttc aggtaatcct cccctct

1127

&lt;210&gt; 603

&lt;211&gt; 1022

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 603

```

tttttttttt tttttttttt tcttgetgta ctacaaagag atagaatcaa actgcttttt 60
ttcgacatac tggttttttt ttctgttttt cttctctttt ttctattttt tgtggatatt 120
atggctaata acacaacaag tttagggagt ccatggccag aaaacttttg ggaggacctt 180
atcatgtcct tcaactgtat catggcaatc gggctggtac ttggaggatt tatttgggct 240
gtgttcattt gtctgtctcg aagaagaaga gccagtgtc ccatctcaca gtggagttca 300
agcaggagat ctagggtctt ttacaccac gccctcaaca gaactggatt ttaccgccac 360
agtggctgtg aacgtcgaag caacctcagc ctggccagtc tcaccttcca gcgacaagct 420
tccctggaac aagcaaattc ctttccaaga aaatcaagtt tcagagcttc tactttccat 480
ccctttctgc aatgtccacc acttctgtg gaaactgaga gtcagctggg gactctccct 540
tcttccaata tctctcccac catcagcact tcccacagtc tgagccgtcc tgactactgg 600
tccagtaaca gtcttcgagt gggcctttca acaccgccc cactgccta tgagtccatc 660
atcaaggcat tcccagattc ctgagtaggg tggcttttgg tttttgtttc tttcttgtct 720
tgtcttttat tgaaaggaaa tcaaaaatag gctaaacaga attttgaggg catggcccaa 780
ataactcatg agttccaagt tgaacatgg ttgtgcaagt tggacattac aatgtaaaac 840
acattttctt caaacacggt ttcccttttg tttcaaaaaa tgtaatatatt tcccccaagc 900
gttttatatt tatgtatttt gtattcaatg tgaggcttat taaaaatagt gattctaatg 960
taagaatcag ctaagatgca ttatatatat tttaattaaa attaaaactt cagatatattg 1020
tg                                     1022

```

&lt;210&gt; 604

&lt;211&gt; 1572

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 604

```

ggcttcactt tctgtcctcc accatcatgg ggtcaaccgc catcctcgcc ctctcctgg 60
ctgttctcca aggactctgt gccgaggtgc agctggagca gtctggagca gaggtaaaaa 120
cgcccgggga gtctctaaag atttctgtga agacttctgg attcactttc accagctatt 180
ggatcggtcg ggtgcgccag agaccgggga aaggcctgga gtggatgggg atcgtctatc 240
ctgggtgatc tgactccaga tatagcccg ccttccaaga ccacgtcacc attttagccg 300
acaagtcac cagaccgccc cacttgcagt ggagcagcct gaaggcctcg gacaccgcca 360
tgtattattg tacgagattc aagggctact gtaccaatac cacttgttat ggcgagggcg 420
cttttgacta ttggggccag ggaacctggt tcacctgtc cgctgcaccc ccgaccagcc 480
ccaaggtctt ccgctgagc ctctgcagca cccagccaga tgggaacgtg gtcacgcct 540
gcctgggtcca ggccttcttc cccagggagc cactcagtg gacctggagc gaaagggaaac 600
agggcggtgac cgccagaaac ttcccaccca gccaggatgc ctccggggac ctgtacacca 660
cgagcagcca gctgacctg ccggccacac agtgcctagc cggcaagtcc gtgacatgcc 720
acgtgaagca ctacacgaat cccagccagg atgtgactgt gccctgccc gttccctcaa 780
ctccacctac cccatctccc tcaactccac ctaccccatc tccctcatgc tgcaccccc 840
gactgtcact gcaccgaccg gccctcgagg acctgtctt aggttcagaa gcgaacctca 900
cgtgcacact gaccggcctg agagatgcct cagggtgcac cttcacctgg acgcctcaa 960
gtgggaagag cgctgttcaa ggaccacctg agcgtgacct ctgtggctgc tacagcgtgt 1020
ccagtgtcct gccgggctgt gccgagccat ggaaccatgg gaagaccttc acttgcaactg 1080
ttgectaccc cgagtccaag accccgctaa ccgccacct ttcaaaatcc ggaaacacat 1140
tccggcccga ggtccacctg ctgccgcgc cgctggagga gctggccctg aacgagctgg 1200
tgacgtgaa cgctgcctggc acgcggttc agcccaagg acgtgctggg tccgtggctg 1260
caggggtcac aggagctgcc ccgagagaag tacctgactt gggcatccc gacaggagccc 1320
agccagggca ccaccacctt cgctgtgacc agcatactgc gcgtggcagc cgaggactgg 1380
aagaaggggg acaccttctc ctgcatggtg ggccacgagg cctgcccgt ggctctaca 1440
cagaagacca tcgaccgctt ggcgggtaaa cccaccatg tcaatgtgtc tgttgtcatg 1500
gcgagggtgg acggcacctg ctactgagcc gcccgctgc cccacccct gaataaactc 1560
catgtcccc cc                                     1572

```

&lt;210&gt; 605

&lt;211&gt; 1080

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 605

```

gggagaagat gcctgggggt ccaggagtcc tccaagctct gcctgccacc atcttcctcc 60
tcttcctgct gtctgctgtc tacctgggcc ctgggtgccg ggccctgtgg atgcacaagg 120
tcccagcatc attgatggtg agcctggggg aagacgcccc ctccaatgc ccgcacaata 180
gcagcaacaa cgccaacgtc acctgggtgg gcgtcctcca tggcaactac acgtggcccc 240
ctgagttctt ggcccgggg gaggacccca atggtacgt gatcatccag aatgtgaaca 300
agagccatgg gggcatatac gtgtgccggg tccaggaggg caacgagtca taccagcagt 360
cctggggcac ctacctccgc gtggcccgag cggcccccag gcccttcctg gacatggggg 420
agggcaccaa gaaccgaatc atcacagccg aggggatcat cctcctgttc tgcgcggtgg 480
tgcctgggac gctgctgctg ttcaggaaac gatggcagaa cgagaagctc ggggttggtg 540
ccggggatga atatgaagat gaaaaccttt atgaaggcct gaacctggac gactgctcca 600
tgtatgagga catctcccgg ggctccagg gcacctacca ggatgtgggc agcctcaaca 660
taggagatgt ccagctggag aagccgtgac accctactc ctgccaggct gccccgcct 720
gctgtgcacc cagctccagt gtctcagctc acttcctctg gacattctcc tttcagccct 780
tctgggggct tccttagtca tattccccca gtgggggggt ggagggtaac ctactcttc 840
tccaggccag gcctccttgg actccctctg ggggtgtcca ctctctctcc ctctaaactg 900
ccccccctcc taacctaatc ccccgcccc gctgccttcc ccaggtctcc ctacccccag 960
cgggtaatga gcccttaatc gctgcctcta ggggagctga ttgtagcagc ctcggttagt 1020
tcacccctc ctcctgatc tgtcagggcc acttagtgat aataaattct tcccaactgc 1080

```

&lt;210&gt; 606

&lt;211&gt; 800

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 606

```

gccctggcgg cggcggccca tggggccctt ggcgctgcc gcctggctgc agcccaggta 60
taggaagaat gcgtatcttt tcatctatta cttaatccag ttctgtggcc actcttggat 120
atttgcaaat atgacagtca gattcttttc atttgaaaa gattcaatgg ttgacacttt 180
ttatgctatt ggacttgtga tgcgactttg ccaatccgta tctctcctgg aactgctgca 240
cataatgttt ggcattgagt caaacatct tctcccaagg tttttgcagc tcacagaaag 300
aataatcatc ctttttgttg tgatcaccag tcaagaggaa gtccaagaga aatatgtggt 360
gtgtgtttta ttctctttt ggaatctatt ggatatggtt aggtacactt atagcatgtt 420
atcagtcata ggaatatcct atgctgtctt gacatggctc agtcaaacac tatggatgcc 480
aatttacct ttgtgtgttc ttgtgaagc atttgccatc tatcaatgc tgccttattt 540
tgaatcattt ggcacttatt ccaccaagct gccctttgac ttatccatct atttcccata 600
tgtgtgaaa atatatctca tgatgtcttt tataggtagt tattttacct acagtcatct 660
atactcagaa agaagagaca tcctcggaat ctttccatt aaaaaaaga agatgtgaag 720
tacagcattc cagtgtgaca cgagaaaaga caggctgtgg attcagtgca gtaataaaaa 780
cacaggaagt attctggtgg

```

&lt;210&gt; 607

&lt;211&gt; 1373

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 607

```

gatggctgtg gagctgggag tgctgctcgt ccggccccgg cccggaaccg ggctgggtag 60
agtgatgcgg accctcctgc tgggtgctgt gctggcgacg cgcggaagcg cgctctactt 120
tcacatcgga gagacggaga agaagtgtt tattgaggag atcccgacg agaccatggt 180
cataggaaac taccggacgc agctgtatga caagcagcgg gaggagtacc agccggccac 240
cccggggctt ggcattgttg tggagggtga ggacccagag gacaaggta tctggccc 300
gcagtatggc tccgagggca ggttcacttt cacttcccat accctgggtg agcaccagat 360
ctgtcttcac tccaattcca ccaagttct cctctttgct ggaggcatgc tgagagtcca 420
cctggacatc caggtaggtg aacatgccaa tgactatgca gaaattgctg cttaaagaca 480
gttgagttag ttgcagctac gactgagaca gctgggtgaa caagtggagc agatccagaa 540
agagcagaa taccagcggg ggagagagga gcgcttccgg cagaccagtg agagcaccac 600
ccagcgggtg ctgtgggtgt ccattctgca gacctcatc ctctggcca tcggtgtctg 660
gcagatgcgg cacctcaaga gcttctttga agccaagaag cttgtgtagc tgtccaggc 720
gtcacaaccc atctccag gctgggggag aaaggacctc ctggaactga cttcttctgt 780
caggaggact ggtttccagc catacctgtt ctggaaggga gaggggctgg aggcaccac 840
aggcacaagc tgaaggcagc agcttggtta atactgagca ggtagtgggg caaattcctg 900

```

```

ccctctctct ctggcctctg ggcggtttgg tagtaatcac ccaggggctg gtaaaagccc 960
tcctctttggc acctcagaat cacagtgtta ctgatcaggg atgtgaggct gctgttgggg 1020
gtgggggggag gggaatgggc aggcaagcca gtcttctgtc ttcctttgtt aacttagggg 1080
tttgagcagg ttgggggtatg gtgcctgtca taccacactg ccacctggg aacctcactg 1140
ttctctcttt cagcctagac ctgctgatcc aggggtgtgtg tgagttgagg gtgggtggag 1200
gggtttgcag tgtgggaatg tggccctgca gttgacctga gctgcttcac atggttgtcc 1260
attctggggc ttaaagaact gggaccagac caagtagagg ccttggtgtg ggttgggggt 1320
gggcctgcag agtccttagt actgatttca ttttcaataa atgtagggtt gtt 1373

```

&lt;210&gt; 608

&lt;211&gt; 1777

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 608

```

aaatggcggc ggcggcgacg gccggggcgt cctgaagcag cagttatgga gcttccctca 60
gggcgggggc cggagcggt ctttgactcg caccggcttc cgggtgactg cttcctactg 120
ctcgtgctgc tgcctacgc gccagtcggg ttctgcctcc tcgtcctgag cctctttctc 180
gggatccacg tcttctggt cagctgcgag ctgccagaca gcgtccttgc cagattcgta 240
gtgcggacca tgtgtgcggt gctagggctc gtggcccggc aggaggactc cggactccgg 300
gatcacagtg tcagggtcct catttccaac catgtgacac ctttcgacca caacatagtc 360
aatttgctta ccacctgtag caccctcta ctcaatagtc cccccagctt tgtgtgctgg 420
tctcgggggc tcatggagat gaatggcgcg ggggagttgg tggagtcact caagagattc 480
tgtgcttcca cagggttcc cccactcct ctgctgctat tccctgagga agaggccacc 540
aatggccggg aggggctcct gcgcttcagt tccctggccat tttctatcca agatgtggta 600
caacctctta cctgcaagt tcagagaacc ctggtctctg tgacggtgtc agatgcctcc 660
tgggtctcag aactgctgtg gtcacttttc gtccctttca cgggtgtatca agtaagggtg 720
cttcgtcctg ttcctgcga actaggggaa gcgaatgagg agtttgact ccgtgtacaa 780
cagctggtgg ccaaggaatt gggccagaca gggacacggc tctctccagc tgacaaagca 840
gagcacatga agcgacaaag acacccaga ttgcgcccc agtcagccca gtcttctttc 900
cctccctccc ctggtccttc tctgatgtg caactggcaa ctctggctca gagagtcaag 960
gaagttttgc cccatgtgcc attgggtgtc atccagagag acctggccaa gactggctgt 1020
gtagacttga ctatcactaa tctgcttgag ggggccgtag ctttcatgcc tgaagacatc 1080
accaagggaa ctacgtccct acccacagcc tctgcctcca agtttccag ctctggcccc 1140
gtgacccctc agccaacagc cctaacattt gccaaagtctt cctgggcccc gcaggagagc 1200
ctgcaggagc gcaagcaagc actatatgaa tacgcaagaa ggagattcac agagagacga 1260
gcccaggagg ctgactgagc tcaaaggaa aggatggcac ccagagccgc aggacggagt 1320
tgccccatgt gcctttgggt gtcttccggg gggctctggc caagattggt tgtgtgtgtt 1380
tgtttttctt tttttgttt gggggggccg tagttttcat gcctgaagac atcaccaagg 1440
gaactcagtc cctaccaca gcctctgct ccaagtttcc cagctctggc ccggtgaccc 1500
ctcagccaac agccctaaca tttgccagt cttcctgggc ccggcaggag agcctgcagg 1560
agcgcaagca agcactatat gaatacgcaa gaaggagatt cacagagaga cgagcccagg 1620
aggctgactg agctcaaagg aacaggatgg caccagagc gcaggagcgg agactggggg 1680
cagccctcac ccaactcaca acaggctgga tgggtgggtg gtaaaaaggg aaggatgagg 1740
ctcccccaat gtcacattaa attcatggtt ttcattc 1777

```

&lt;210&gt; 609

&lt;211&gt; 2209

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 609

```

cgttgcgagc cttagctttc tcccgaacgc cagcgctgag gacacgatgt cgcggctctc 60
ccgctcactg ctttgggccc ccacctgcct gggcggtgtc tgctgtgtgt ccgaggacaa 120
gaacacgacc cagcaccgga acgtgacgac ttttagcgcc atctccaacg taacctcggc 180
gccggtgacg tccctccgcg tggtcaccac tccggcacca gaaacctgtg aaggctcgaa 240
cagctgcgtt tctgttttta atgttagcgt tgttaatact acctgctttt ggatagaatg 300
taaagatgag agctattgtt cacataactc aacagttagt gattgtcaag tggggaacac 360
gacagacttc tgttccgttt ccacggccac tccagtgcga acagccaatt ctacagctaa 420
acccacagtt cagccctccc cttctacaac ttccaagaca gttactacat caggtacaac 480
aaataacact gtgactccaa cctcacaacc tgtgcgaaag tctacctttg atgcagccag 540
tttcatttga ggaattgtcc tggctctggg tgtgcaggct gtaattttct ttctttataa 600
attctgcaaa tctaaagaac gaaattacca cactctgtaa acagacccat tgaattaata 660
aggactggtg attcatttgt gtaactcact gaagccaaaa tactatcttt taagatgtcc 720

```

```

cacatggaag acgctattcc aggatcttta aatttccatg gatgcatata ggatgtttgg 780
gagcatcatc cgtgaagaaa aaatcaatta aatcattgtg ttcaacagga atatttataa 840
tattctgcat gaatcctgtg gctgtcttat tttaaatagc tgctgctgtg ggattatatt 900
ttttttcctt aacatgccaa atataacttt ctgaaagtga tggaaaatgt tgtcttgtgc 960
agacaacatc atggctcttg gcagttttaa ttttagtaatt ttaatttagt gaacagaatt 1020
gagaagaacg tgccaaatga gaatcaatta ggtggatttt tggctgtcat ttcaaaagt 1080
gaataaattt attaatntag tagtactaaa tggatcctt agattaaaat tttgtgcttg 1140
ataacagctg ttttttctac attagaaata agatgccaca caaggaaacta cattccagat 1200
ttaaagaaat gaaaggatac cattagtgtg tataacagat tattgttcat acttgtaaag 1260
tatcttatgt cattgagaat ataaagaaca gtgccttaga agacagtga aggtaagctc 1320
tagcttaatg tctatgattt gttctttgac attaaggaag gtaaggattg gtcagaggat 1380
gtaacttgat gtgagcagta gtaaacctgt ttttagatct atactgttaa tattttattg 1440
aaaatttatt tcagagcgga gaaacttaag cttaaagtct ttatacagaa ttgaaagcct 1500
tcgatcttga acctcccaac atttttctta tggctgttga aaagtataga gctaaattga 1560
tttaattaca ctttctcttg tactttaaaa aaaagtatgc tagcactatt gtacctgaa 1620
aggatttcca ccagactgtc ttgagtagtg acttcttttg tgaggcaaga aggatataca 1680
ttattttaga atcatttact atttaaatga gacaatcata ttattttaga atcatttatt 1740
ttaaatgaga caatcatttt aagttttaag ataacagaag tgaccaatgt aatttcacaa 1800
cacctaagga ttttttggtt gatcagggtt ctgtagattt ttactgattg tctgggatga 1860
atagactgtg ctttttcttt ttctctccct tccttcttgg tttcccatag tataataagc 1920
atgcatactt taacttctat agttttctcc ttttagaggt cgtcttcagt ttttagaggt 1980
tacttctccc ttgcctttga ctcatggac tagtgcagag gctttaagta gtttaaaatg 2040
ggcttttget tttctaggtc attaacgttt tttatttagt ttcttttagc aatagtggct 2100
gtttttcgca cttgattttc aatattttat agtaagaaat gacaaactgc tttgtttcat 2160
ttcataaaca aactctgcat ttagataact attaaaggtt gttaagacg 2209

```

&lt;210&gt; 610

&lt;211&gt; 2054

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 610

```

cttttttttt tttttttttt tttttttttt tcagattcct ctacagttta ttgttatagc 60
agaagtgtgt ggagacggga gggcaccctc cacacatact acagtgtggt cagagcccca 120
gggtagccct ttccacccta tgccaagccc caagcagccc agcccaagct tagctccctc 180
cccagtccca ctctagatgc aactgagct accaaagtta gtgcagccaa acggcccccag 240
gccccttctt gttgccccag caccaatcct tcccacact cgttcaactgc ccgccaaactc 300
ccattccaac ttccctttta cactggatgt ttctatcaca tcctgaggac cactaaccce 360
ccagcaagtc tccccctgac acacattcac gtaggtccat acccttcaga gtccctaaag 420
gttaatgaga agccacctca gctttggtga atggagcccc agccccaat cccctccctc 480
tgcaaatatg ggacaagtag ggagagtctg atggaggcac caggacaact acaacaacct 540
cttaccctc agctatagac acctagatca ggacagagga tgcatatgcc ctctccacct 600
taacatcaaa atggggggag aggagaattt aggggtctgg gtccctaaga gatattagga 660
catctcttcc aggagctggg gggaatcacg ggttaaagggt caagggttagg gtagcaatca 720
aagatcaagg tcatctcccc gcatgatctg ccttttttcc cttgcttacg gtggcccaat 780
gccccttcag cactctccag gttagctctg ggggaggtga gggctgggtc ccactctagg 840
gcaacaaggg ccattcaaca ggagacctcc atggtgtgcc ccggggggcc cgaagaaaga 900
gttccagact cgctgctctg ggacaggggt cgagagcggg accggttgcc atcaacggat 960
gctgcactgg tcagagaggg tgtacgagac cgggacaggg gagtcatgca ggatgaggcc 1020
atgtagccca tgccttgtag gaagtacttg aaggcctcgg tcagcttgcc tggctgagtc 1080
agctgggggt gacctccgga gtcagccatc ttgaggaacg aggtctgggt ggggtccagt 1140
tttgagttac attccaccac tgcattctca tgaggtgctt ggtctctac caccagcatc 1200
acaggacacc tgaggggtgat atcacctcca cgctcaaagt tcaggtctcg gcggttggtg 1260
tagctgttcc agtacaattc aatgttatcc aggttgggtg catgtgtaat gatatttctg 1320
tacttttgta tcaactcaga atttccagag agctcttctt ggtgaaaag atgtccaagg 1380
atcatctccg gaatggaaga ggtgaggcct gttagcttgt gggctgccc atccatccaa 1440
cccttggcat tgggatcaat gttgatgagg acaagacctt caacagtgtc cgggtgggtta 1500
agagcatatc tcgccaggat gtaggtcca gctccaacac caactccaat tattgtagag 1560
aaatttaggt atgcaggac gcaagggatc atgtctgcaa gctggtccag agatgggtac 1620
tgatatccca aagggaacac aggggtctcc tcttccattc caggggcatc cacatgaacc 1680
cgcacaaagt tctgaatgat ttctgcatg tctctgaact gaaacagtgg ctggaagcaa 1740
gatttatagt tgagtccac atcgtggtag gtaaggatcg ctgggcgttt ggggttgggg 1800
gtgccataga cagtgaaggt gacagagccg tatggtgtct ccacagagt agtctgtccc 1860
tggtcaggga ggattcgggc agctaactca gctccttgg ccgctcagg cgtctgtcct 1920

```

ggcaacagtg gcttctctc tgtgatctgc acctcctgca gctccgccat ggtggctggg 1980  
 ctccatttgg ctggatgcag tgggattagg ggtcagggtt ctccactcctt ctgactctgg 2040  
 ggtctgctgc cgcc 2054

<210> 611

<211> 1288

<212> DNA

<213> Homo sapiens

<400> 611

tgcaaacctag atagaaacct ttatttcaca actttatcat cattcacatt ctaaaaagac 60  
 acggactggg ggacacagt gaaaacagt ggaggccaga tgctggcatc ttccagacgg 120  
 gagcatagcc atggctactc tagccgatgt ctctgggggc tctcaggcgg caaggaccag 180  
 atgcaccact actgtccaat cccagtttta cttagagcca cctccttttt tggggccatt 240  
 agtccttatt tcatgccaga ttttacttag cggctccctg ttcttccaaa tcagtctcatg 300  
 accgtagaata acataccata ttccaaaag agtcccccga agatgtgccg catgatcaaa 360  
 aaatttccat cccaggatca ttctgtctgt atccatggcg ataattggctt tcagggcatt 420  
 ccctgtctgt aacgtgaaca tcggaaggaa aataatggca agcctccctt ctgggatcctt 480  
 agtcagaca gctgcgagga ctgtcatgat ggcaccagac tgcaaaagtaa catgcaccaa 540  
 gtgatggctc atatcttctt gtggcaactt taccaggga actgacaaaa ttggaataaa 600  
 cacctgcaga taggtacact gccatgaact gctcttgacc cagaatgttc actatgctgg 660  
 aagagaagct ccacaaaaca tacataattg ctgccatgtg aaataaggag aagtactga 720  
 atgttgacag caacattgga gaacaaagga cctttgaggc tggattcgat gtgaaatc 780  
 tgatcattgt ccgctgcaga gaaggctact tccataaaca gaatacaagg acatttgag 840  
 ctataatacc tgtcacagtc cgctggccat cacttaggtt attccaccac ttgttaattc 900  
 cctttctgaa gtctccttct ttttgtggtc ttatgctatc caaccaatca gcttttatac 960  
 catcaaaata actctggacc ctggatttca gtgattcata ttgcaaaata gcagctgac 1020  
 caaatgcaca gcctgtaaac ccaacagtaa aaaataaagg ttttatgaga ctcttatag 1080  
 gatagggaga aggataaaag actgtttctt ccacaggagg aatcaaagca cttctcttgt 1140  
 atgcttcacc acttgtccct gggctctgac ttctagggtt aaccttctg ggtgcttttc 1200  
 tgaatccgca tttttgttga ataaagaagt taaacctgcg tccgaggagc tgcggcgggg 1260  
 ttaggaccgc agtgagctcc tcgcagct 1288

<210> 612

<211> 1708

<212> DNA

<213> Homo sapiens

<400> 612

acataaccca gatagaagat gccaccgaga agctcaaggc taatgcagag tcaagtaaaa 60  
 cctggctgaa ggggaaattc actgaactca gattactact tgacgaagag gaagcgctgg 120  
 ccaagaaatt cattgataaa aacacgcagc ttaccctoca ggtgtacagg gaacaagctg 180  
 actcttgacg agagcaactt gacatcatga atgatctctc caacagggtc tggagtatca 240  
 gccaggagcc cgatcctgtc cagaggcttc aggcatacac ggccaccgag caggagatgc 300  
 agcagcagat gagcctcggg gagctgtgcc atcccgctgc cctctccttt gagcccgtca 360  
 agagcttctt taagggcctc gtggaagccg tggagagtag attacagacg ccattggaca 420  
 ttccgcttaa ggaaagcata aactgccagc tctcagaccc ttccagcacc aagccaggta 480  
 ccttgttgaa aaccagcccc tcaccagagc gatcgctatt gctgaaatac gcgcgcacgc 540  
 ccacgctgga tcctgacacg atgcacgcgc gccgcccgtc gtccgcccgt cgctgacgg 600  
 tgcgctgcgg cctgctgggc agcctggggc ccgctgcccgt gctgcccgtt gcgcgcctct 660  
 ggcaagtgtc ggctcgtgac tgccttcgcca ccggccgcca ctactgggag gttgacgtgc 720  
 aggaggcggg cgccggctgg tgggtgggag cggcctacgc ctcccttcgg cgccgcgggg 780  
 cctcgccgcg cgcccgctg ggctgcaacc gccagtcctg gtgcctcaag cgctacgacc 840  
 ttgagtactg ggcttccac gacggccagc gcagccgctt cgggccccgc gacgacctcg 900  
 accggctcgg cgtcttctct gactacgagg ccggcgctct cgcttctac gacgtgacgg 960  
 ggggcatgag ccacctgcat accttccgag ccacgttcca ggagccgctc taccggccc 1020  
 tgcggctctg ggagggggac atcagcatcc ccggctgccc ctaggggcca ggaccggcgt 1080  
 gacagctcc aggtacgccc cagctgcccc gtctcgccca atctacctag atcagcgtgg 1140  
 ctggctccct tactgctgc ttcttagggc cctctccctg cccagctttt ccccgaccac 1200  
 tcacgcctac agtgctttga aggtttctct tcttaggcta gtttcaaaca ggccctaaac 1260  
 aagtctgctg ctgcctctct atcagacctc cgcacctca cccaccatc acttacacta 1320  
 ctttaatcca gttccttcaa agtgataccc ccacaggtaa gccctcagca tctgaatac 1380  
 atcatccgca gcctgggaac cttctccctc gtacagcaca ggaacctgac acatagtagg 1440  
 cacacagtaa acgtttgtga atgaatggga gtcattccagt cctgactctt ctgtctcttg 1500

```

aggccccctg aatcttccgc ttctctccca ccgatttcag cgtgtccaca tcacagctcc 1560
ctccagaagc tgcaagagct tcttagcagt tcctgggtctg aaccctctcc cagtcctcat 1620
cttccaccct aaaactagag tgatcttctt aaaacttcac ttaaccctc agctatgaaa 1680
aggcttcag gagtttccat gaaataac 1708

```

&lt;210&gt; 613

&lt;211&gt; 2617

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 613

```

tttttttttt tttttttgca aataactaaa atacctaaag caaattaata gtaattccta 60
aatatcatca aatactcaat attcaaatta tctcacaagt gccataattt taaaaatccc 120
aatctaaatg aaagccatac attggaattg ttttaagatga gctgtatgtg ttctaaacta 180
ttgtttcccc ttctgtctta tttttttctt ggaatttatt tgttgactaa accagattga 240
ttgtctctgaa gattttccta ctctctatag tatagtatgg acaaatttca tctcatatca 300
tttaatcata cattttctctt ctctagtggt tcaataaatc agtagctgga tcgagaagct 360
tgaagaattt cagggttgat atttgttttt gtataagtat ttcacagaat gtatatcaag 420
aagactttta attaatataa tatacgaatg ctaataaagt tagaagccag agaagaccag 480
ataagaaaag tagataagaa aaaactcata ttgttctgtt tcaacatgtg taagaatatt 540
aatcaccttt tcaagagtcc tggttatatt cataacaaca ttaaatcaac tattttaaat 600
aatgtttttt tcaactctgtc ttttcggatt attatgctaa atggatttta tcataaagaa 660
tttaaggcaa cttcaagatg gatattcagt ttaaatcaa aacatatttc taggataata 720
acttattatc acagatggca aaagcagaat aagattaact gaattcaatg tcagaagca 780
gaagcaacca gtattgtcaa ataagtggca agggaaaaaa atgatgaaag ggaaccctat 840
tatttaaggc agaaaatcat aggtgtgaca cataggatat gatttataaa tatttgttga 900
ataacaacag acttagaatg aatggactat ccagtgat taggctgttc ttgcattgct 960
ataaagaaat acctgagact gggatattta taaagaaaag aggtttaatt ggctcagggt 1020
tctgcaggcc gtaccgaag catgtgccag catctgcttg gcttctgggg aagcctcagg 1080
gagctttcaa tcatggtgga aagcaaaagg ggaagccagc atctcacatg gtgggagcaa 1140
gggtgggtgg aaggaggtgc cacaagaca acaccaagcc atgagggatc tgcccccatg 1200
agccaaacac ctccaccag gccccatctc cagcactggg gattacaatt caaccgaga 1260
ttggagccca ggacaaacat ccaaactata tcacctaggg tgcattatgaa gatgcctgag 1320
ttcagtaaac aattctgtct ccttctatga gaaatgacag gatgaatgat caagaatgat 1380
cacaccata acattatgtg ccttcaactc aatcttttcc tgtgtttctc cagagaggaa 1440
aagcccttaa tctccaact ccaattattt agttgttaat aatttaacaa attatttcca 1500
tccctctgct cccttgacac attgctcatg acaccggact acgtattcaa ttatttcccc 1560
accctgtcat tcttagctct ctctttccac agttcatctt ccttctaacc cattccagtc 1620
cattcttagg aagaaagaaa ccaaaattct attttgtctt aggtattttg tctcccagaa 1680
gtagatcctg atgcaaggat ttggttgcaa gtaggttatc ctgaggtgac ccagaaaggc 1740
accaagaggg aagttgagaa gtgagacaga gaaggatgg aaggcaatga aaggtgttat 1800
aaagtacaag tcttccacta tgggcaactg gggctgaatc ctgcagggga ttctgggaga 1860
ctgtatgcaa tgtgcttcag ggttgtagca attcaagggc aagaacacta aggcacgtat 1920
taaaaaatct ccatotatta tttgttgcc tcttccctcc agaaacattt gtcctttaat 1980
tttcaataaa gtgtctcca agttttctcc ctgcatctca ctatcattc ttcagcaaga 2040
caatagatcc ctcccatcat gcattaaatg tttctgtttt tcaggaacct gatttgtctg 2100
tgcattctct cctgaacaag cacatctcct cccttggtt caatcatccc ccacccacc 2160
cccggcctgg tgacatgtac ttctctcttt tcagagccca aactcatttt ccttaggtaa 2220
agtgacattt ccacetaaat agttaagcag gtctctcaaa ctgagtatgt tcaaaataaa 2280
attcagtaac tttttctttt catcactaca ctggaaatta ttttaaaaat aaaacaattt 2340
ctccatccta ataactcttc attaatgagt cactttccat ctggtcacac aagctagacc 2400
cttccatata atctttgctt ctctctcttc cttatttccc acattaaatt tgtcatcaat 2460
tccatccctt tcttatgtcg gtcccacgtt cctattgttc agactactcc cattgctcag 2520
attctcatct gtatcctcaa ctctagtcat ttttactttc tccagcttcc aaatgatcct 2580
ccatgccact gcctctgtgt gtgtacgacc ttagaaa 2617

```

&lt;210&gt; 614

&lt;211&gt; 595

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 614

```

tttttttttt ttttgggtgt taaaatgaaa attcttatta aaaaaatcaa aacaaaaaaa 60
ttaaaataaa aacaaaacca gcgagaatta atacctgggg ttggtatggc agggatgtga 120

```



```

caggggggaac cccccgcccc tgtcccaccc cctctgtcac caaccgagge agggggggagg 180
ttgaggttcc ccagctgggg agcaatggct tgtgagttct gaggatgggg gagccaagtc 240
ctggcgctttg ctgggtgatga agatgtgggt agctgggcag aggggtgtct tgatgaacac 300
gaggccccca ggacccatcc tgagaccag gaccaggggc ctctactcagt tcttggcctc 360
ggcctctgac gtcagcccag gctgtgggag caggcagtc actgaggggc caggcctctg 420
tccaaggagt cgctgcctcc tccctccccg tccccaggg aaggtcccca gtactgcccc 480
ggaggggcagg tgggggcagg gctggtgcgg ggtcacatgg tcggtagaaa ggcagagaaa 540
agccggggcg gagggcgagg gctgtgtcca tgtggcgagg gcggtcacgg ggaaa 595

```

&lt;210&gt; 615

&lt;211&gt; 765

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 615

```

acattctctgc tcttggcgct cagcacccgt gccaggccg aaccgggtgca gttcaaggac 60
tgccgttctg tggatggagt tataaaggaa gtgaatgtga gcccatgccc caccacaacc 120
tgccagctga gcaaaggaca gtcttacagc gtcaatgtca ccttcaccag caatattcag 180
tctaaaagca gcaaggccgt ggtgcatggc atcctgatgg gcgtccaggt tccctttccc 240
attcctgagc ctgatgggtg taagagtggg attaactgcc ctatccaaaa agacaagacc 300
tatagcttacc tgaataaact accagtgaag agcgaatct cctctataaa actggtggtg 360
gagtgccaac ttcaggatga caaaaaccaa agtctctct gctgggaaat cccagtacag 420
atcgcttctc atctctaagt gcctcattga gttcggtgca tctggccaat gagtctgctg 480
agaactctga cagcacctcc agctctgctg cttcaacaac agtgacttgc tctccaatgg 540
tatccagtga ttcgttgaag aggaggtgct ctgtagcaga aactgagctc cgggtggctg 600
gttctcagtg gttgtctcat gtctcttttt ctgtcttagg tggtttcatt aaatgcagca 660
cttgggttagc agatgtttta tttttttttt aacaacatta acttgtggcc tctttctaca 720
cctggaaatt tactcttgaa taaataaaaa ctcgtttgtc ttgcc 765

```

&lt;210&gt; 616

&lt;211&gt; 316

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 616

```

ctccctcagc accatgtacc gagcaattcg gctcctcgcg cgctcgcgtc ccctcggtgc 60
ggctccagcc gcagccttag cttcggtccc cggttgggt ggccggccg tgccctcggt 120
ttggcctcgc aacgcggctc gaatggcaag ccaaaattcc ttccggatag aatatgatac 180
ctttggtgaa ctaaagggtgc caaatgataa gtattatggc gccagagccg tgagatctac 240
gatgaacttt aagattggag gtgtgacaga acgcatgcc accccagtta ttaaagcttt 300
tggcatcttg aagcga 316

```

&lt;210&gt; 617

&lt;211&gt; 1811

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 617

```

aagaggggag agtggcgggc cgctgaataa gcttccaaaa tgatgccac accagttatc 60
ctattgaaag aggggactga tagctcccaa ggcattcccc agcttgtgag taacatcagt 120
gcctgccagg tgattgctga ggctgtaaga actaccctgg gtcccggtgg catggacaag 180
cttattgtag atggcagagg caaagcaaca atttctaata atggggccac aattctgaaa 240
cttcttgatg ttgtccatcc tgcagcaaag actttggtag acattgcca atoccaaagat 300
gctgaggtgg gtgatggcac cacctcagtg accttgcctg ctgcagagtt tctgaagcag 360
gtgaaaccct atgtggagga aggtttacac cccagatca tcattcgagc tttccgcaca 420
gccaccagc tggcagttta caagatcaaa gagattgctg tgaccgtgaa gaaggcagat 480
aaagtggagc agaggaagct gctgaaaaag tgtgccatga ccgctctgag ctccaagctg 540
atctcccagc agaaagcttt ctttgctaag atggtggtgg atgcagtgat gatgctcgat 600
gatttgcctg agcttaaaat gattggaatc aagaaggtag aggggtggag cctcgaggat 660
tctcagctgg tagctggtgt tgcattcaag aagactttct cttacgctgg gtttgaaatg 720
caacccaaaa agtaccacaa tcccaagatt gcccttttga atgtcgagct cgagttgaaa 780
gctgagaaag acaatgctga gataagagtc cacacagttg aggattatca ggcaattggt 840
gatgctgagt ggaacattct ctatgacaag tttagaaga tccatcattc tggagccaaa 900
gttgtcttgt ccaaaactccc cattggggat gtggccaccc agtactttgc tgacagggac 960

```

```

atgtttctgtg ctggccgagt acctgaggag gatctgaaga ggacaatgat ggccctgtgga 1020
ggctcaatcc agaccagtgt gaatgctctg tcagcagatg tgctgggtcg atgccagggtg 1080
tttgaagaga cccagattgg aggcgagagg tacaattttt ttactggctg cccaaggcc 1140
aagacatgca ccttcattct cctggtggcg gccgagcagt ttatggagga gacagagcgg 1200
tccctgcatg atgccatcat gatcgtcagg agggccatca agaatgattc agtgggtggct 1260
gggtggcggg ccattgagat ggaactctcc aagtacctgc gggattactc aaggactatt 1320
ccaggaaaac agcagctgtt gattggggca tatgccagg ccttgagatt atcccacgcc 1380
agttgtgtga caatgctggc ttgatgcca caaacattct caacaagctg cgggctcggc 1440
atgccagggg ggttacctgg tatggagtag acatcaaca cgaggacatt gctgacaact 1500
ttgaagcttt cgtgtgggag ccagggtatg tgcggatcaa tgcgtgaca gcagcctctg 1560
aggctgcgtg cctgatcgtg tctgtagatg aaaccatcaa gaacccccgc tcgactgtgg 1620
atgctccac agcagcaggc cggggccgtg gtcgtggccg cccccactga gaggcacccc 1680
acccatcaca tggctggctg gctgctgggt gcacttacc tcttggctt ggttacttca 1740
ttttacaagg aagggttagt aattggccca ctctcttctt actggaggct atttaaataa 1800
aatgtaagac t                                     1811

```

&lt;210&gt; 618

&lt;211&gt; 872

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 618

```

tttttttttt tttttttttt ttaatacaac gtttaatcat ctggttgatc aagaaatgca 60
atgctcagtc taggaacagc agcagaaata ggcgagagaca cgggactttt atacaaaaaa 120
atgtgtgtct taaaaacat atgcaaaaaa agcttaaaaa aaccagagac caaaggcagc 180
atccttgcta attttcatct acattaagaa aaaaaaaatc ttgtaactaa tgtttttatt 240
ttccttaaaa aaaaatattc gcttaggcac aatttgctgg ttgctttaga agaataagcc 300
aggtttcac agcatccccc ttgagtata tgtttccatt tctcgcctt ttatagttaa 360
ggcatttttt tcttctctga caaagtgtat gttttgttgc ttgctttcag gttttgttta 420
ctttcacatg tgcggcgagg ggttggtggc ttgcgtcagg cctgggtggg gagctgaaag 480
caccatctgg gggctctcaa ccacacctga caccctttcc tcttctcgcc gtttcaaaaa 540
ggctgctttg ggattcaggt tccgctctcg cacttgctgc tccaagttca ggatgaccga 600
gacagcctgg tgcaggatga gcagtttggg ctggggcttc tcgctgttga ggtgcagttg 660
gcacatgcgc cccagctcct taaaggcctc gttgatgtca cggaccgcga gcgctcccc 720
ggcggttatt gccaccggc gctccttctc cgcctcgcc ttctgctctg gtccggggcc 780
ggggggcctt cagctccttc ttctcctcct ccagtggtgc agccgctgac gtgttctcct 840
cgtcctcctt ctctcctcgc ttgatctcgc tg                                     872

```

&lt;210&gt; 619

&lt;211&gt; 1115

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 619

```

gccgcttttt tttttttttt tttttttttt tttttaagtt gaaaaatacc ttgtttaaga 60
cctccctggg acccacagg gcacgtgtgg ccgtaagcct gtggcagccc aatcgttagc 120
ctttttcttc tttagacctc tctaagtaca tctgcaggga cttctggatg gactctttgg 180
agatgaagct gacgaagttc tgcacgtccg catcgcgtg cgtgaccagg cggctggccg 240
tggccttttc catcatggcc ttggtcagct gtccgagcat gtctggaatg gccatccact 300
gggctatcgc tgacagcgca gtgctctgca cctgctcctc cgggaccacc tgggtccacta 360
tgcccaacct cagggcctcc gccggcgagg agagcagccc cagctgcagg gcaagctccg 420
ccgcccgggt cccgatgggt ttctccagg tgtctttcaa ccagaaagg gcgatgatgc 480
ccagctgggt ctattgagt cctatgcagt acctggggtt gtccgccagg atgcggtagt 540
cacaggctag ggccaccagg cagcctccag cggggcaggc tccgttgatg gcggagacca 600
gcaccagggt ggactggtag aadcgagcc acagctcctg aacggccttc cagtaccag 660
cgtagtgggc ggggctcctc ccacacatct ccgtcaggtc caggccggcc gagaagacac 720
ccgggcggtc cgaggtcaga atgacaccgc ggaagctctt gtcattctcc agcttctcca 780
ggctgatgac cagctccgtc agaaactcca ggctcaggct gttcactggg gggttcttga 840
atttcatcac agcgaccctc gcgcccgcgt ccggctccac cagcaccgc tggctcccga 900
agcgccgcgc gccgtctccg ccgcccggcg ccgctccgt ccgcccagg gccgcggccg 960
ggagccgggc cctcggaag gcagcgtggg ggagccggt agttccgggt cctggccccc 1020
gccccggccc gatccctgcc caccgggggt ttgcacccg cgcggagcag aacgcggccc 1080
gggactcgca cagaagccac cagcgccctt agaaa                                     1115

```

<210> 620  
 <211> 1888  
 <212> DNA  
 <213> Homo sapiens

<400> 620

```

gaagaacaaa agcttttactc gtgctcggca acagcaaagc aggaggcaga ggggagatga 60
cgccccctgt cccattttccc tccatggaag gaaccaggcg gggagggtggg tctgctggga 120
tgggcaggtc agcggaacaa aagggtcctg ttgtttatgg gccagggcac agtggggcag 180
gagcacgacc cagaaagtag tcttgagcca caagtacagag cggagaaaaac atctctgtgg 240
tcccagtcaa gaggcctccg aatgaggcgc ctggactggg agcaaagctc tggtcgagaa 300
catgaccttc ccgggcctga gtcccactgt ggtgcccggc cgtgcaccca gcctgcggca 360
gagaggggcg cgtccccccac aaagcctgcc aggtgagcc cttgcaatgg ccgtggctgg 420
gccaggacct tggcctggag cctgctcctt gacaccagc cagcctagca cccgccttca 480
gcaaacaggtg atggagcccg gatggcagct ccctccagg tgcgcaagtg ctgggggtgga 540
agcctgtttc cgtgggatca accttggggc tgggtcgggg ggagggggcac tgcggccctg 600
gccatcagcc tggctgtctt cgttctccca aaacacccat caccgcaccc accaagggtc 660
gggaaaaggg ggggcttgca ggctaccaga aggtctgcag gtgcctgcat ctactgggtg 720
cggcctgtgg acctgaggga gcccactgag ccatagggg gctctggttc cccgcgcctg 780
ggacagagcc agcagccctg ggtcgggggtg gttgggtgtca ccgagaggte gggcgccctg 840
tttctgcctg ggacaccagt ccgtgtctgg gtacagaaga caatggatag actttaaccc 900
gtgtggggte ttgatgcagg ctttaagcctc cagccacgtt caccacgttc tgtgggttct 960
caggaccccc atggctcaag gtaacctgct ggacagggtg tcggggcgga gcctctgcag 1020
gttctccagg tagagtggaa gaggggggtt gtgcagcagg cggggcgcca ggagcccctc 1080
cacgatgtag ccaacttgtg cagtcacccg gcagccgcac ctgctcagct gtgctcatga 1140
agctgcccag gctgggggga ggccggtcag cacttttcag gtctcagcct ccgcctccca 1200
gcccgggcag ctggaccccc actcacctgg ccatggggt catcttgagg gcaaggcctc 1260
tgctgaggca gaaccgggcc ccaccagtag caaacagaa cttgaccgtg gtcacagttc 1320
tgccaccctg gaccctctcg gtggcctcaa tggggtgggt caggctgggc cgcccaggtc 1380
agacgtcctg gctgggtgag aagctggaga gcagggtgcag gaggtcctt gcgttcacat 1440
aattgtcatc atccacgtgc aaaaccactt gcgcccggaa ctcaatgaac ttgtcactat 1500
ccacggacat cttgcagcag agggcctgac gagtgcgcac cgccagcag ttggtgttga 1560
tgacacggtc gccgcctcgg agctcagact cagggtcgtc ccgctcgtg aagataaacg 1620
tctgctggcg ggcccgggag atccaggtgc gcagcagcag ccgcagggcg ggcctgtggt 1680
tcttcggggt ggtcttgacg gcgatgaaga cgtcgtcagg ccgcaggctg ggggcagcgg 1740
gccggggacg ggcgcgcgcg gggggccggg cgggggtccg ggcggggcg ggcgcgcggg 1800
gcagcggcag cggcagtaac agcagcgcgg ccaggggcgc ggccagcgcg aggcaggccc 1860
ggcacagcgc cccacgcgcg cggctcat 1888

```

<210> 621  
 <211> 1903  
 <212> DNA  
 <213> Homo sapiens

<400> 621

```

cttttttttt tttttttttt tttttttttt tgggctgcag catattattac atgtgctttg 60
gcgaaaataa ataattcttc acacacatat ttcagcaggc catgaaaaac ggggagggaa 120
gggcagctgc aaagtctcca ggagtaaagg ggccggggag gtgctcgggc agcacagggg 180
agggaaagatt aaggcacagg tgcgcggggc ctacagcgcc caggggaggg gtgtggaaac 240
ctcccctctc agtgacgtg gtgagtggct gccgaggggg cccacgggca agaccctct 300
tggcaactgt gagtcccttc atctcactgc gcagtggtaa tggaggcgtc tcaggcaggg 360
ttcctcgaga gggtcggggt ctccacagccc caggggcccc atcacgggccc gggcctcggg 420
agcaggggtg ctacagcaagg gggcaggccc gcccggtcgt tgcctcgggg atgctgggtc 480
cgcggggggc ggagccgggt cggcgggtgc gcgatgcgc agagcttcgg gcgggaaggc 540
cacgttgggt cagaagaggc cgagcagcag ctggcgctgg cactcctccc acttggccag 600
cgctgcccc agcgagaggt tgttgcgcat ccagccgggc agtgccctc tgtaggcggc 660
gcaggacagc ggcacggacg gcagcgactg gacgcggcgc agctccacct gctccggcag 720
cctggagggc aggtgcctgc ccagcttctt cttggcggcg atcaccaggt actggcagat 780
gctgcccgtc tgcctcttca tccaccggat gtctcggga acgtcgggca gccactccag 840
caagcggatg gtgaaggaca gagcgtcttc cagcggcagc gtgtagggca ccatcatggc 900
cgtggccaga cgcacaggca gcatgttggg gaggggtggc agcaggtccg tgggtccac 960
gcaggcctcc agcagggcct cattgagccg ggcgggcagg tgcctcagga tgtgatcttc 1020
tccgggcagc tgcagtaat cctccgcttg ggcgtctctc actgcctggt ccttgccttc 1080
tgggcccgtg gggcggggcg ggggcaacgc cagcaagggg ttgggcccgt tcaggaggcc 1140

```

```

gttccgctgc agaaagcgca ggccatcccg gtatccctgc ttgcacatct ctgcgagcac 1200
caggggctcc ggcgggaaga gggccttgga gaggcggtag aggttgcgca ggttgaactg 1260
gatgctggtg ttggtgaccc gcagctcgtg gatgttggtg gagctgtcct gcggacagat 1320
gtcactctcg cccgagaagg gggacactgt gatggtgttc ttaagctcat agagtggcag 1380
gttgtctgaa atgccaccat ccacgtagcg cccccctgg agggagggag ggatgagccc 1440
acagtacacg gggatgaaac cgctgcagac attggcctgg atgagctcgt ccttggagtt 1500
gaagtgggat ataatgacat tctcgccgtc tgacacgcgg gtcagggaga tgcccaggcg 1560
cccactggca tgctcatggc tatcagcagg caggaccttc agcaggaaac tgcggatgat 1620
ctttaccagg ttgaaggagg ggtgcagggg gccagggaac cgcttcgggg cctctttaga 1680
tacctcaatg aacttggcac cagcctcacc caggcagacc ccggtgacca gcgccgtggc 1740
cgtgagcgcc ccggccgagg cgccgtagat gtgctgtggc ttggccacca ggaagggcgc 1800
gtgctcgcg aggcaggagg ccacgcccgc gtagtagacg ccagggaagc cgcagcccgc 1860
gaacgagatg ttccacgtct tctcgcgggg aaacatcgcg gcg 1903

```

&lt;210&gt; 622

&lt;211&gt; 1519

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 622

```

cccgggttca agcgattctc ctgcatcagc ctcccagta gctaggatta caggcgcccc 60
ccactacgcc cagctaattt gtggtatttt tagtagagac agggtttcac catggttgcc 120
aggctggctc cgaactcctg acctcatgat ccgcccgcct tgacctccca agtgctggg 180
attacaggca tgagccaccg caccagcct gcattcctgt ttttttaatg gttttggagg 240
gtagcagtag agatggggtc tcaactatgt gcccagtcta gtcttgaact cctgggctac 300
agttaccctc ctacctcggc ttcccaaagt gctcggatta caggtgtgag ccaactgtgc 360
tagcctataa tgatcatttt aatgtttccc atgcactcat ttagtttgaa ccttcacagc 420
aacccaatga ggtaatactc ccatttcaca tataatactg agagatgagt tgcacaagat 480
tatacactgt taahtagcag agccagaatg gacttcagaa tcccaactac aatacaaatg 540
tttatttaaa taaagaagaa agctattgta caaatatcac tcttcagggt tagcttacag 600
agccatggct atggattctt agctctgtaa ggaagtgcct ctataaattc ttaggtttag 660
agatgatacc atctgggtct agtaggtgga tcccatccag ttggtttcca agggatgacc 720
tgaaacagtg taaaaggagg ggcaaaccag aaatcctgga attagagggt ttaatattgt 780
taaaaaatgc ataccaaag aagactgcct atcatcatat caaatatgcc aattctaaaa 840
agagcttaac attagaatag tatatggtag aattactagt tcagaattgg catagattct 900
ggtgttaaaa tagactggat ctgtattatc tgagggttag taactaatgc ttagccaggc 960
ctgcttcaca tagttgctac cagggagtat tctttggata agcaaaatgc tagcagcatg 1020
tgttttaagc tctgttaagg ggtgaaagat gtaattattg acagattaaa tagataactt 1080
cgtaaccacc agggggcaga ttcaatacat cacagaatgg ctgaggaaga tccttgggtt 1140
gtgaagagag tagaaaccct agggagcagt gcttttgggt cctagaacct gttgagtttc 1200
taatgaatat ttgtagaatc tcataaaaca gtttaataac aagcttaagt ggcttatgaa 1260
tctgtgaag ctcatttatg gactagtgtt aaacaatgtg aagctctact aagttctgtc 1320
cttaatcata aataatagac ccttgaggac tagcctgttc tctggtcacc ttaccagttg 1380
ggttgcacat tgtgtggtcg tccaaataac tcaatcttgc gagtgcagg agatagcttt 1440
tcaatcatgc catagatttc atctggttta tgactggtgg aacgaacctt ggaaataaaa 1500
actagctgct ttttaagtt 1519

```

&lt;210&gt; 623

&lt;211&gt; 1014

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 623

```

aacagactag ctctctagta cctccatata tcggaatgat actgaccgca ttgctgcaag 60
gcctggctgg aagaacgtgg gcaggaaagg aggagctatt gaaagccatt gcctgtgtgg 120
tgacagcttg cagtgcagag ctggaaaagt ctgtgcccac tcaaccacgc acaaatgaaa 180
ttcttcaagc tgttctgaag gaatgtagca aagagaatgt caaatacaag attgtagcaa 240
tcagctgtgc agctgatata ttgaaggcca ccaaagagga cagattccag gagttctcta 300
acattgtcat acctctcatc aagaagaact cacttgaaag cagtgggggtc cggacaacca 360
aaaaatgaaga ggagaatgaa aaggaaaagg agctccagct ggaatatctg ctgggtgcct 420
ttgaaagcct gggcaaagcc tggccgcgaa acgcgagac ccaacgttgt tatcgtcagg 480
agctgtgcaa actgatgtgt gaaccggcta aactcagcac gtggaaagtg cagctaggag 540
tcctgcaatc aatgaatgcc tttttttcag ggggttaatgc ttttggaaga agaacatgcc 600
gatcctgagg ctttggctga aattctgctt gaaacttgta aatcaatcac atattcttta 660
gaaaataagc cctactcatc tgtgagaaca gaagctttat ctgtgataga atggctgctt 720

```

```

aaaaaacttg aagaatctaa acagtgggaa tgtttgacat ctgaatgcag agtgctccta 780
attgagctct tagctactat ggagccagac agcagacctg aactgcagga gaaagcagcg 840
ttactgaaga aaacacttga aaatctggaa taaattagaa ggggaagaaa caaacaagtg 900
ccatgttcat tgggggttga agtgggtgtg ttctttgaaa aaccaagtgg gaaaaagtaa 960
agattaatct gtagcatgca tcattccttg gctgaaataa aaagaaaaag cctt 1014

```

&lt;210&gt; 624

&lt;211&gt; 1573

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 624

```

cttttttttt tttttttttt tttttttttt tgaatggatc tttttatttc taattttata 60
agatgcaaca tctcaccocg ttgacacggg tagtttgcat gcacacacag agcgggccagc 120
cgccccgagc ctgtgggcag gccagcaggg tcagtagcag gtgccagctg tgtcggacat 180
gaccagggac acgttgtaga ggggtgggtt accgggtggc ttgtccacgg tcctctcggt 240
gacctgttg ggcaggccct catggggccac cacgcagggt taggtctccc ccgtgttcca 300
ttcctcttcg gacacggtea ggatgctgtg ggcgaagtac cggcctgggg cctggggctc 360
aggcattggg gcgctggtca catacttctc cggggacaag ggctgcccc tctgcatcca 420
ctgcacgaag acgtccgcgg gagagaagcc cgtcaccagg cacgtgatgg tggccgactc 480
ccgcagggtc agctgctccc gggctgggtg cagcaagtag acatcgggcc tgtgcagggc 540
caccoccttg ggccgggaga tggctctgct cagtggcgag ggcaggctct tgtgggtcac 600
gggtgcagtg aacctctccc cggaattcca gtcactctcg cagatgctgg cctcaccac 660
ggcgctgaaa gtggcattgg ggtggctctc ggagatgttg gtgtgggttt tcacagcttc 720
gccattctgg cgggtccagg agatggtcac gctgtcatag gtgtcagggt ctgtgaccag 780
gcagggtcaac ttggtggact tggtaggaa gatgctggca aaggatgggg ggtggcgaa 840
gaccocgatg gctgtgtctt gatcggggac acacatggag gacgcattct gctggaaggt 900
caggccccctg tgatccacgc ggcaggtgaa catgctctgg ctgagccagt cgtctcttt 960
gatggtcagt gtgctggtca cctgttaggt cgtggggcca gactccttgg cctcagcctg 1020
cacctgggtc gtggtgacgc cagacccac ctgcttcccc tcgcgcagcc aggacacctg 1080
aatctgcccg ggaactgaaac ccgtggcctg gcagatgagc ttggacttgc gggggttgcc 1140
gaagaagccg tcgcgggggtg ggacgaagac gtcacttttg ggaggcagct cggcaatcac 1200
tgggaagagg acgttctttt ctttgttgcc gttgggggtg tggactttgc acaccacgtg 1260
ttcgtctgtg ccctgcatga cgtccttggg aggcagcagc acctgtgagg tggctgcgta 1320
cttggccccc ctcaggactg atgggaagcc ccgggtgctg ctgatgtcag agttgttctt 1380
gtatttccag gagaaagtga tggagtcggg aaggaagtc cgtgagggc agccaacggc 1440
cacgtgctc gtatccgacg gggaattctc acaggagacg agggggaaaa ggggtggggc 1500
ggatgcactc cctgaggaga cggtgaccag ggtgccctgg cccagtggt cgaaaagggg 1560
cgaaccttag aaa 1573

```

&lt;210&gt; 625

&lt;211&gt; 1900

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 625

```

attcggcctc ggcctcgctg tcttctgcag ccgtactgg aacctccacc tcgactccag 60
cggccccgac agcacggaag cagctggata aagaacaggt tagaaaggca gtggacgctc 120
tcttgacgca ttgcaagtcc aggaaaaaa attatgggtt gcttttgaat gagaatgaaa 180
gtttattttt aatgggtggt ttttgaaaa ttccaagtaa agaactgagg gtcagattga 240
ccttgcccca tagtattcga tcagattcag aagatatctg tttatttacg aaggatgaac 300
ccaattcaac tctgaaaag acagaacagt tttatagaaa gcttttaaac aagcatggaa 360
ttaaaacgtt ttctcagatt atctccctoc aaactctaaa gaaggaaat aaatcctatg 420
aagccaagct ccgccttctg agcagttttg atttcttctt tactgatgcc agaattaggc 480
ggctcttacc ctcaactcatt gggagacatt tctatcaaag aaagaaagt ccagtatctg 540
taaaccttct gtccaagaat ttatcaagag agatcaatga ctgtataggt ggaacggtct 600
taaacatttc taaaagtgtt tcttgcagtg ctatcagtat tggtcacgtt ggaatgcaaa 660
ttgagcacat cattgaaaac attgttctg tcaccaaagg actttcagaa aaattgccag 720
agaagtggga gagcgtgaaa ctctgtttg tgaaaactga gaaatcggct gcacttccca 780
tcttttctc gtttgtcagc aattgggatg aagccacca aagatctttg cttaataaga 840
agaaaaaaga ggcaaggaga aaacgaagag aaagaaattt tgaaaaacaa aaggagagga 900
agaagaagag gcagcaggct aggaagactg catcagttct tagtaaagat gatgtggcac 960
ctgaaagtgg tgatactaca gtgaagaac ctgaatcaaa gaaggacacg accccagagc 1020
atgggaagaa aaaacgtggc agaggaagag cccaagttaa agcaacaaat gaatccgaag 1080

```

```

acgaaatccc acagctggta ccaataggaa agaagactcc agctaataa aaagtagaga 1140
ttcaaaaaca tgccacagga aagaagtctc cagcaaagag tcctaataccc agcacacctc 1200
gtgggaagaa aagaaaggct ttgccagcat ctgagacccc aaaagctgca gagtctgaga 1260
ccccaggga aagcccagag aagaagccaa aaatcaaaga agaggcagtg aaggaaaaaa 1320
gtccttcgct ggggaaaaaa gatgcgagac agactccaaa aaagccagag gccaagtttt 1380
tcaccactcc tagtaaactc gtgagaaaag cttccacac ccccaaaaaa tggccaaaaa 1440
aacccaaagt accccagtcg acctaaagtc agtgattcaa ctggaaggaa acctcaatgc 1500
tgctccaga gctttttgga aatactcaga tcctggcgcg ctttgtaacc ttctctaaac 1560
gtcaggcctg gacttaaaag attttttaaa acctccataa gtagtccagg ggcggtggct 1620
cacgcctgta atcccagcac tttgggaggc cgaggcaggc ggatcacaag gtcaacgaga 1680
tcgagaccat cctggccaac atggtgaaac cctgtctgta ccaaaaatac aaaaattaat 1740
tgggcatggg ggtggacacc tgtaatccca gctactaggg aggctgaggc aggagaattg 1800
cttgaacctg ggaggcggag gttgcagtga gccactgcac tccagcctga tgacagagca 1860
agactcagtc tcaaaaataa ataaaaataa taaacctccc 1900

```

<210> 626

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> linker sequence

<400> 626

gaattcggcc aaagaggcct a

21

<210> 627

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> linker sequence

<400> 627

gaattcggcc ttcatggcct a

21

<210> 628

<211> 8

<212> DNA

<213> Artificial Sequence

<220>

<223> linker sequence

<220>

<221> unsure

<222> (7)..(8)

<400> 628

gaattcnn

8

<210> 629

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> linker sequence

<220>

<221> unsure

<222> (1)..(9)

<400> 629  
nnnnnnnnnc tcgag 15

<210> 630  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> linker sequence

<220>  
<221> unsure  
<222> (1)..(9)

<400> 630  
nnnnnnnnng tcgac 15

<210> 631  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> linker sequence

<400> 631  
acggcctctt tggccctcga gaca 24